EnviroFocus
Technologies

October 10, 2008

Mr. Al Linero
Program Administrator
Special Projects Section
Florida Department of Environmental Protection
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Re: Response to Request for Additional Information
Project Number: 0570057-020-AC

Dear Mr. Linero:

We are in receipt of your September 12, 2008 letter requesting additional information in support of the Air Construction Permit Application we submitted on August 8, 2008 for the modification of EnviroFocus Technologies, LLC's lead recycling facility in Tampa, Florida. Since receipt of that letter we have been in frequent contact with David Read and Debbie Nelson of your staff and Sterlin Woodard and Diana Lee of the Hillsborough County EPC regarding specifics of the information request.

Enclosed is a compilation of the additional information requested by the Department. Accompanying this material are certification forms providing statements by both the facility Owner and a Florida Professional Engineer in support of the additional information being submitted.

We trust that with the submittal of this information in response to your September 12, 2008 request our application is complete.

We appreciate the assistance of your staff and the staff of the Hillsborough County EPC in reviewing our application. Please feel to call me or our consultant, Russell Kemp of ENVIRON (678-388-1654) with any questions or comments you may have regarding the enclosed responses.

Sincerely,
EnviroFocus Technologies, LLC

John Tapper
Chief Operating Officer

Enclosures

cc. Sterlin Woodard, PE, Hillsborough County EPC

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :
   John Tapper, Chief Operating Officer

2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **EnviroFocus Technologies, LLC**
   Street Address: **1901 N. 66th Street**
   City: **Tampa** State: **Florida** Zip Code: **33619**

3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **(651) 405 - 2203** ext. Fax: **(651) 454 - 7926**

4. Owner/Authorized Representative Email Address: **jtapper@gopherresource.com**

5. Owner/Authorized Representative Statement:

   I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.

   Signature: [signature] Date: 10/8/08

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OCT 15 2008
BUREAU OF AIR REGULATION

APPLICATION INFORMATION

Professional Engineer Certification

1.	Professional Engineer Name: **Russell S. Kemp, P.E.** Registration Number: **56355**
2.	Professional Engineer Mailing Address... Organization/Firm: **ENVIRON International Corp.** Street Address: **1600 Parkwood Circle, Suite 310** City: **Atlanta** State: **Georgia** Zip Code: **30339**
3.	Professional Engineer Telephone Numbers... Telephone: **(678) 388 - 1654** ext. Fax: **(770) 874 - 5011**
4.	Professional Engineer Email Address: **rkemp@environcorp.com**
5.	Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature [signature] Date 10/10/08

(seal)

* Attach any exception to certification statement.

The following information is being submitted in response to a request for additional information from Florida Department of Environmental Protection (DEP) dated September 12, 2008. Also included are responses to questions from Hillsborough County Environmental Protection Commission (EPC) that were attached to the letter from DEP. DEP and EPC's questions are reiterated in italics for the sake of convenience. Additional information is attached to supplement the responses, where needed.

1. <u>Eagan Minnesota Lead Recycling Facility</u>. *In Section 2, page 5 of the application it is indicated that stack tests from Eagan Minnesota facility were used to develop expected actual emissions estimates of pollutants for the reconstructed Tampa facility. Please provide a side-by-side comparison of the feed materials, major operational parameters such as material throughputs at various points in the recycling process, pollution control equipment for the emission units, and measures to control fugitive emissions throughout the process. (Also please provide a table comparing in tons per year (tpy) at maximum production capacity the actual emissions at the Eagan facility with the expected actual emission at the reconstructed Tampa facility. [Rule 62-4.070, F.A.C. Reasonable Assurance]*

Attached are two process flow diagrams (Attachments A and B) showing the emission units, throughput rates, and control equipment for both facilities. As shown, the Tampa facility will be essentially identical in design to the Eagan facility, except that the sulfur dioxide emissions from the furnaces at Eagan are controlled by a dry scrubber, while the Tampa facility's sulfur dioxide emissions will be controlled by a wet scrubber. Additionally, the hygiene baghouse at Tampa will have a separate stack, rather than being combined with the furnace emissions into a common stack as it does at Eagan. The fugitive dust control measures are essentially the same at both facilities (i.e., building enclosure, wheel wash stations at exits, and vacuum sweeping of paved areas), except that the Tampa facility will also use wet suppression on the paved areas to provide additional control of dust from vehicle traffic.

Also attached is a table showing the estimated maximum actual emissions from both facilities (Attachment C). As shown, the estimated lead and particulate matter emissions from the controlled stacks are slightly higher at the Tampa facility, because the control devices at Tampa have slightly higher air flows at the same outlet concentrations. All of the gaseous emissions, except sulfur dioxide, are expected to be the same as they are based on process rates, which are identical at both facilities. The sulfur dioxide emissions from the Tampa facility are estimated to be much lower, as they will be controlled by a higher efficiency scrubber.

2. <u>Hazardous Air Pollutant (HAP) Emissions Other Than Lead</u>. *In Section 2.3.1, page 6 of the application, it is indicated that trace amounts of HAPs emissions such as mercury and cadmium will be emitted from the reverb furnace. However, in the Table 5 of Appendix B no emission estimates are given for HAP from the reverb furnace. Please provide estimates of HAP emissions from the reverb furnace and any other emission units where trace amounts of HAP emissions are expected to occur. [Rule 62-4.070, F.A.C. Reasonable Assurance]*

The HAP emissions from the furnaces were estimated using an emission factor derived from stack testing at Eagan that was performed at a point where the furnace emissions are combined. This factor was therefore applied to the combined furnace emissions as shown in Table 9 of the emissions inventory included with the application. Because the relative contributions between the furnaces was unknown, no attempt was made to apportion the emissions to either of the furnaces in their respective emission tables, Tables 5 and 6.

3. <u>Blast Furnace Feedstock Materials</u>. *In Section 2.3.2, page 6 of the application, it is indicated that other lead-bearing scrap materials from primarily battery production facilities will be fed into the blast furnace. Please provide a description of these lead-bearing materials. [Rule 62-4.070, F.A.C. Reasonable Assurance]*

A list of lead-bearing materials that will be charged to the Blast Furnace is included as Attachment D to this response. The estimated lead content of each material stream is also identified on the attachment. The majority of these materials are produced by lead-acid battery manufacturing facilities, as listed in 40 CFR 266 Appendix XI.

4. <u>Blast Furnace PM and Lead Emissions</u>. *In Section 2.3.3, page 6 of the application, it is indicated that PM and lead emissions from the blast furnace will be equal to the emissions from the Eagan facility, while the potential emissions of these pollutants is assumed to be twice that of the Eagan facility. Please, provide justification for this assumption. [Rule 62-4.070, F.A.C. Reasonable Assurance]*

The actual PM and lead emissions from the furnaces were estimated based upon emission factors that were developed from Eagan stack testing and the potential PM and lead emissions were based upon their respective BACT limits. The actual metal HAP emissions were also estimated based upon Eagan stack tests, but there were no BACT limits upon which to base the potential emissions. Therefore, the potential emissions for metal HAPs were conservatively estimated to be twice the stack-tested emissions rates to account for potential variation and to avoid underestimating their magnitude.

5. <u>Blast Furnace Control Device HAP Reductions</u>. *In Section 2.3.3, page 7 of the application, it is indicated that HAP emissions from the blast furnace will in actuality be less than the that the estimates provided in the application due to the co-benefit of the HAP reduction provided by the sulfur dioxide scrubber. Please provide an estimate of the HAP reduction provided by the scrubber. [Rule 62-4.070, F.A.C. Reasonable Assurance]*

The only data available to support an estimated reduction of HAP emissions passing through a wet scrubber downstream of a baghouse is a stack test summary that was included in the background information document (BID) for the Secondary Lead NESHAP. An excerpt from the BID is included as Attachment E. According to the test results shown on the table, the lead emissions were reduced by only 27.3% by the scrubber. The other metal HAPS were not tested at the scrubber's inlet. Because it is uncertain what the efficiencies would be for the other metal HAPs, EnviroFocus has not attributed any control efficiencies to the scrubber in the estimating of metal HAPs emissions.

6. <u>Facility Wide Emission Totals</u>. *In Section 2.13, page 10, Table 2-1 of the application, Expected Actual and Potential Facility-Wide Emissions are summarized. With respect to lead emissions, please separate stack emissions from fugitive emissions resulting from paved and non-paved areas. [Rule 62-4.070, F.A.C. Reasonable Assurance]*

As shown in Table 2-1, the total actual lead emissions from the entire facility, including fugitive emissions from paved areas and non-paved areas, is 1.12 ton/yr. Of this total, 0.178 ton/yr is from fugitive emissions and the remaining 0.942 ton/yr is from stack emissions. Similarly, the facility-wide potential lead emissions are estimated to be 4.06 ton/yr, of which 0.178 ton/yr is from fugitive sources and 3.882 ton/yr is from stack emissions.

7. Best Available Control Technology (BACT) Options. *In Section 4 of the application the BACT determinations for each emissions unit at the facility are described. Please provide a discussion and summary table of the BACT utilized for similar emissions units with their permitted limits at other lead recycling plants in the United States. [Rule 62-4.070, F.A.C. Reasonable Assurance]*

The only facilities that have undergone PSD review in this industry are Sanders Lead in Alabama and Doe Run in Missouri. A discussion of the BACT determinations for these facilities, as well as RBLC printouts for them, was included in the permit application. Nevertheless, in order to give a more complete assessment of the limits applicable to other lead recyclers, EnviroFocus has compiled a summary of the lead, particulate matter, and nitrogen oxides limits of other lead recycling plants across the country (see Attachment F). The summary includes all plants for which permits could be readily obtained, and represents the majority of the currently active lead recyclers.

As shown, most of the permits limit the lead emissions from their respective facilities to 2.0 mg/dscm (0.00087 gr/dscf), which is the limit established in the Secondary Lead NESHAP. A few facilities have lower limits of 1.0 mg/dscm (0.00044 gr/dscf) on furnace emissions and as low as 0.5 mg/dscm (0.00022 gr/dscf) on some non-furnace sources, such as general building ventilation. EnviroFocus has proposed as BACT lead limits 1.0 mg/dscm on furnace, dryer, battery breaker, and hygiene ventilation and 0.5 mg/dscm on general building ventilation, which is in line with the best controlled sources in the industry.

The particulate matter emission limits shown in Attachment F range from 0.022 gr/dscf, which is the NSPS standard for furnaces down to as low as 0.008 gr/dscf for a slag storage area at one facility. EnviroFocus has proposed a PM BACT limit of 0.005 gr/dscf for all sources, except the plastic pellet silos, for which the proposed limit is 0.001 gr/dscf due to the inherently low emissions expected from plastic pellet storage.

As shown in Attachment F, there are very few limits on NOx emissions from lead recyclers and those that exist are primarily due to local ozone SIP requirements rather than BACT determinations. Additionally, none of the sources employ any active means of NOx reduction at their sites, except for Quemetco in City of Industry, California, which uses a new technology identified as "LoTox" to accomplish NOx reductions under Southern California's RECLAIM emissions trading market in that extreme ozone non-attainment area.

8. Particulate Matter Modeling Analysis. *Please explain why emissions were modeled for the hours of 7:00 a.m. through 10:00 p.m. instead of the entire day. Further, please explain how maximum high, second-high increment modeled concentrations, listed in Table 5-20 of the application, were determined. The Department's modeling review showed higher results near source ID 23.*

The sources that represent fugitive emissions from traffic on paved surfaces were modeled based upon a 7:00 am to 10:00 pm operational schedule for shipping and receiving operations. All other sources were modeled assuming 24-hour operation.

Assuming the questioner intended to refer to Table 5-21 (full impact analysis for PM10). The maximum impacts near source ID 23 were excluded because EFT is not significant on that day at that receptor. All the 24-hour concentrations above 30 ug/m^3 in the NAAQS modeling, all the 24-hour concentrations above 20 ug/m^3 in the increment modeling, and all the 24-hour concentrations above 5 ug/m3, were generated using the max file option in AERMOD. The max output files were copied into "PM ST.mdb". By pairing up the concentration date and location, queries were used to pull out the maximum concentrations that have significant impact from EFT. The query results were copied into the file "postprocessing PMST.xls", where the high 6th high NAAQS concentration and the high second high increment concentration were determined.

9. _Modeled Building Parameters_. *With regards to Table 5-11 and the Particulate Modeling Analysis, please explain building ID E13-00 and E14-00 further. These buildings are also listed as sources in the modeling. However, E13 has a 0 lb/hr emission rate and both source release heights are different than the height of the buildings listed in the aforementioned table.*

"Buildings" E13, E14, E15, and E16 are actually the plastic pellet silos. Since only one of these units can emit at any given time, the total proposed emission rates for all the four silos combined were conservatively modeled at E16, which is right at the facility boundary. The structure heights were determined from a drawing of the silos, included as Attachment G, at the highest spot of the silo side. The exhaust is vented at the top of the silo and is slightly higher than the silo itself.

10. _Rule 62-212.400(3)(h)(5), Florida Administrative Code (F.A.C.)_. *Although growth impacts were addressed in the application, please provide further information to comply with this Rule, specifically to 1977.*

A summary of the growth impacts to 1977 is included as Attachment H to this response. As a point of clarification, this requirement is currently located at 62-212.400(4)(e) in the Florida Administrative Code.

11. _Fugitive Emissions Control Plan_. *Please document how the project will meet the outstanding State Implementation Plan deficiency cited by EPA to submit and implement a Fugitive Emissions Control Plan.*

EnviroFocus has maintained a Standard Operating Procedure (SOP) for the Control of Fugitive Emissions, which is incorporated in their current Title V operating permit. The most recent version of this plan was revised in December 2006 and is included as Attachment J. As stated in the permit application, EnviroFocus will continue to utilize the fugitive dust control measures described in this Procedure following completion of the proposed project. In addition, the SOP will be updated to reflect the revised and improved facility configuration upon completion of construction.

12. _Continued Compliance_. *Summarize how the project together with the Fugitive emissions Control Plan will insure continued long term compliance with the lead (Pb) standard(s) even with an increase in permitted stack Pb emissions.*

As shown in the impact analysis, the maximum predicted quarterly-average lead concentration, after the facility expansion, is 1.20 ug/m^3. Although this value is below the NAAQS for lead, it still overstates the impact expected from the expansion for a number of reasons. First, the predicted value includes a "background concentration" of 0.39 ug/m^3 taken from a nearby monitor that already measures the impact from the existing EnviroFocus facility. In addition to this "double counting" of the facility's impact, the model was performed using the potential emissions rather than the expected actual emissions. As shown in Table 2-1 of the application, the potential emissions are 4.06 ton/yr, while the expected actual emissions are only 1.12 ton/yr. Lastly, the formulas used to estimate the fugitive emissions from the paved areas are generally believed to overestimate the actual emissions.

Evidence that the model over-predicts the maximum lead concentrations can be seen in the data from monitors at a nearly-identical plant in operation in Eagan, Minnesota. In the past four years, the highest measured quarterly-average lead concentration was only 0.54 ug/m^3, less than half the modeled prediction for the Tampa facility. In addition, the impact from the facility in Tampa is expected to be even lower than Eagan as the Tampa facility will be able to use wet suppression to minimize fugitive dust from paved areas, while Eagan is not able to use wet suppression due to climate concerns. The use of wet suppression is included in EnviroFocus's Standard Operating Procedures for the Control of Fugitive Emissions.

The primary reason for the reduction in the Tampa facility's impact resulting from the proposed project is the enclosure of the furnace and refining areas of the plant. The fugitive emissions from these processes and fugitives from materials stored in these areas, which were formerly emitted at ground-level, will be reduced by a large dust collector (Torit) and any remaining emissions will be ducted to a 130 foot stack, thereby enhancing their dispersion. Thus, due to the improved collection of fugitive emissions, the permitted increase in stack emissions will result in a decrease in ambient concentrations.

13. <u>Modeling Files</u>. *Please submit the building or bpip file for this project. Further, please provide the Significant Impact Analysis files for each pollutant.*

The building inputs can be found at the end of the AERMOD input file, "Lead01m1.dat". The BPIP outputs are part of the source parameters section of the AERMOD input file, which was included with the application. The SIA input files were transmitted electronically to Deborah Nelson of Florida DEP on October 7, 2008 in response to this request.

14. <u>Modeling Source Parameters – Line/Volume Sources</u>. *Please explain why road ID 16 has a zero emission rate for particulate matter.*

This was an error and the PM model has been rerun with the correct emission rate assigned to road ID 16. Revised modeling tables and files are being provided electronically to DEP under separate cover.

15. <u>Modeled Emission Rates</u>. *Table 2.1 in the application details the facility-wide emissions. Were the short-term and long-term modeled emission rates based on the "Expected Actual" or the "Potential Emissions"?*

All of the models used the potential emission rates, not expected actual emission rates.

16. <u>Roadway Fugitives</u>. *With regards to Appendix B Table 16 and 18, please provide the electronic spreadsheets to aid in the verification of emission rates.*

The spreadsheet was transmitted electronically to Deborah Nelson of Florida DEP on October 8, 2008.

17. _Nitrogen Dioxide Increment Modeling_. *Several on property sources have emission rates of 0 pounds per hour. Please verify that these are sources that do not emit nitrogen dioxide. Further explain the source ID "existing".*

The modeling has been reviewed and it was verified that all sources of nitrogen dioxide were correctly included in the model. The source that is identified as "existing" represents the former refinery stack. This stack operated prior to Phase I of the expansion project and has been removed as part of the expansion. The NOx emissions were included in the increment model as a negative emission rate to account for the stack's removal.

18. _Background Monitor Data_. *With regards to Particulate matter and Lead, please provide background data that is more recent. If recent data is available, 2004 through 2007 would be more appropriate.*

More recent data is available for these pollutants and we have revised the NAAQS impact tables to include the more recent background monitoring data. These tables and the modeling files are being provided electronically to DEP under separate cover.

19. _Nitrogen Dioxide Modeling_. *Please verify the results in Table 5-20. The increment modeled results equal the table results for the NAAQS (National Ambient Air Quality Standards) analysis. Further, please verify that only potential or allowable emission rates were used for the NAAQS analysis.*

The results shown in Table 5-20 have been verified. Please bear in mind that the results shown for NO_2 in the table incorporate a conversion factor of 0.75 as provided for in EPA guidance, so they will not be the same as the results for NOx in the model.

20. _Comments of the Environmental Protection Commission of Hillsborough County (EPCHC)_. *EPCHC is the local compliance authority and recently permitted a number of improvements at the site. They are assisting the Department in the review of the present application. Please review and address their comments listed in the attached memorandum.*

EPC-1. *On Page 6, Section 2.31 of the Application it is stated that, "the reverb Furnace will produce molten lead which will be conveyed through channels called launders to the Refining Kettles". Will the lauders or channels be heated to maintain the lead in molten state? If so, what type of fuel will be burned? If fuel will be burned, please provide manufacturer's design information on the burners, along with potential to emit emission estimates.*

The launders will be heated by natural-gas-fired pipe burners. There will be 3 pipe manifolds with a maximum capacity of 150,000 BTU/Hr each. Manufacturer's information is provided as Attachment K. Using AP-42 factors for CO and NOx from natural gas combustion, combined with the maximum firing rate of 0.45 mmBtu, yields estimated emissions of 0.038 lb/hr of CO and 0.045 lb/hr of NOx.

EPC-2. *On Page 6, Section 2.3.2 of the Application it is stated that, "The Blast Furnace will receive the slag material from the Reverb Furnace. In addition, "other lead-bearing scrap* *materials" (primarily from battery production facilities) will be fed to the Blast Furnace." If the primary other lead-bearing scrap material will come from battery production facilities, please provide a comprehensive list of the different types of "other lead bearing scrap materials" that may be fed to the Blast Furnace. In addition, please provide information on the percentage of lead and other contaminants that could potentially be released into the atmosphere.*

A list of lead-bearing materials that will be charged to the Blast Furnace is included as Attachment D to this response. The estimated lead content of each material stream is also identified in the attachment.

EPC-3. *On Page 6, Section 2.3.3 of the Application it is stated that, "The actual emissions (of particulate matter from the furnaces) were estimated based upon stack testing at the Eagan facility. Also, the actual emissions of metal HAPs were estimated based upon Eagan stack testing, while potential metal HAP emissions ere conservatively assumed to be twice these tested values (Eagan facility). However, Table 6 in Appendix B of the Application does not contain PM/PM_{10} Expected Actual emissions information for the Blast Furnace, in spite of the fact that on a table in Appendix B of the Application titled "Baseline Emissions and Comparison with PSD Thresholds", it cites December 1999 – November 2001 PM/PM_{10} Baseline Actuals for the Blast Furnace 1.63 tpy. This value is according to the table based upon emission factors conducted from 6/25/1998 to 7162002. However, pursuant to Rules 62-210.200(36)(b) and 62-210.370(2)(d), F.A.C., Baseline Actual PM/PM_{10} emissions must be calculated over a 24-month period in which the Blast Furnace at the Tampa facility actually emitted the pollutant using site-specific emission factors based upon all stack test conducted a the Tampa facility during at least a five year period encompassing the period over which the baseline emissions are being computed. If EnviroFocus is using metal HAP stack tests conducted at the Eagan facility in order to estimate Baseline Actual metal HAP stack tests conducted at the Eagan facility in order to estimate Baseline Actual metal HAP emissions from the Tampa facility because there is no site-specific metal HAP stack testing from the Tampa facility, then the Baseline Actual metal HAP emissions must be calculated in accordance with Rules 62-210.370(2)(d)1, F.A.C. and 62-210.200(36)(b), F.A.C. using an emission factor based upon all stack test conducted at the Eagan facility during at least a five year period encompassing the period over which the baseline emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the Eagan Blast Furnace, and calculated over a 24-month period in which the Blast Furnace at the Tampa facility actual emitted the pollutant using operational and production data from the Tampa facility. In addition, if EnviroFocus is using the Baseline Actual-to-Potential Applicability Test to determine PSD applicability, then the Potential metal HAP emissions must be calculated using maximum capacity of the Tampa facility's Blast Furnace to emit based upon its physical operational design (Rule 62-210.200(244), F.A.C.) and, if using Eagan emission factors to calculate the metal HAP Potential to Emit, then it must be calculated in accordance with rule 62-210.370(2)(d), F.A.C. Please resubmit the calculations, and revise the Application accordingly.*

The "actual emissions" referred to in Section 2 of the application are the future actual emissions from the facility, not the baseline actual emissions. The following explanation of the emissions inventory information included in Appendix B will help clarify this issue.

The information included in Appendix B of the permit application consists of several parts. The first part is a spreadsheet consisting of 18 tables showing how the future actual and potential emissions from the facility were estimated. In several instances, stack test data from the Eagan plant were used to estimate the future actual emissions from the Tampa facility. Immediately following these tables is a single page that shows the Eagan test data and the methodology used to determine the lead and particulate matter emission factors from the test data. Following this page, is a set of spreadsheets that show how the baseline emissions were developed. The test data used in this section is from previous tests performed at the Tampa facility. As required, the baseline emissions were calculated over a 24-month period of operation at the Tampa facility using emission factors from stack tests at the Tampa facility over a five year period.

It is also important to note that the stacks that were tested at Eagan included emissions from both furnaces. Therefore, in the development of the emissions estimates for the future operation of the Tampa facility, the tables for the individual furnaces, Tables 5 and 6, do not show these pollutants, specifically particulate matter, lead, and metal HAPs. These pollutants are included in the table for the combined stack emissions, Table 9.

Finally, metal HAPs emissions were not included in the baseline calculations, with the exception of mercury, as they have no bearing on PSD applicability. In the case of mercury, a combination of emission factors from AP-42, the FIRE database, and the background information document for the Secondary Lead NESHAP were used in conjunction with actual past operation at Tampa to determine the baseline.

EPC-4. *On Page 7, Section 2.3.3 of the Application it is stated that, "The actual CO, SO_2 and VOC emission estimates (from the furnaces) were based on stack testing at Eagan. Again, as stated above, if EnviroFocus is using the Baseline Actual-to-Potential Applicability Test to determine PSD applicability, then the Baseline Actual CO, SO_2 and VOC emissions must be calculated over a 24-month period in which the Blast Furnace at the Tampa facility actually emitted the pollutant using site-specific emission factors based upon all stack test conducted at the Tampa facility during at least a five year period encompassing the period over which the baseline emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit (Rules 62-210.200(36)(b) and 62-210.370(2)(d), F.A.C.). Please resubmit the calculations in accordance with 62-4.055(1), F.A.C. and Rule 62-4.070(1), F.A.C., and revise the Application accordingly.*

See response to EPC-3 above.

EPC-5. *On Page 7, Section 2.5.1 of the Application it is stated that, "The actual particulate matter, lead, and metal HAP emission estimates (from the refining kettles) were based on stack testing at Eagan. Again, as stated above, if EnviroFocus is using the Baseline Actual-to-Potential Applicability Test to determine PSD applicability, then the Baseline Actual $PM/PM_{10,}$ lead, and metal HAP emissions must be calculated over a 24-month period in which the Blast Furnace at the Tampa facility actually emitted the pollutant using site-specific emission factors based upon all stack test conducted at the Tampa facility during at least a five year period encompassing the period over which the baseline emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit (Rules 62-210.200(36)(b), F.A.C. and 62-210.370(2)(d), F.A.C.). Please resubmit the calculations in accordance with 62-4.055(1), F.A.C and Rule 62-4.070(1), F.A.C., and revise the Application accordingly.*

See response to EPC-3 above.

EPC-6. *On Page 7, Section 2.5.1 of the Application it is stated that, "The potential metal HAP emission estimates (from the refining kettles) were assumed to be double these values (Eagan stack tests). As previously stated with the Blast furnace, If EnviroFocus is using the Baseline Actual-to-Potential Applicability Test to determine PSD applicability, then the Potential metal HAP emissions must be calculated using the maximum capacity of the Tampa facility's future refining kettle operation to emit based upon its physical and operational design (Rule 62-210.200(244), F.A.C.) and, if using emission factors from Eagan to calculate the metal HAP Potential to Emit, then it must be calculated in accordance with Rule 62-210.370(2)(d), F.A.C. and resubmitted.*

As previously mentioned, the potential metal HAP emissions were estimated to be twice the tested emissions at Eagan in order to be conservative. The Eagan facility was operating at or near its capacity (which is the same as the Tampa facility's capacity during the test). Therefore, the potential metal HAP estimates take into account the Tampa facility's capacity and should cover any variability in metal HAP emissions that are normal to the process.

Metal HAPs, with the exception of mercury, are not included in the PSD regulations and were not included in any PSD applicability analysis. As shown in the PSD applicability section of Appendix B, the net emission increase for mercury, even using the conservatively estimated potential emissions, is well below the PSD threshold for applicability.

EPC-7. *On Page 8, Section 2.6 of the Application it is stated that, "In order to reduce the impact of lead emissions on the environment, and to meet the strict requirements of the Secondary Lead MACT Standard, EnviroFocus will enclose the entire facility and ventilate the air exhausted from the building through a large 195,000 acfm cartridge collector identified as the Torit Collector." It is further stated that, "The filtered gases will be admitted from a new stack identified as the Torit Stack. The pollutants emitted from the Torit Stack consist of particulate matter and lead". However, Table 10 of Appendix B of the Application lists metal HAP emission based upon Eagan stack testing. In addition, Table 10 cites Expected Actual and Limiting Levels PM/PM_{10}, and lead, with the Limiting Levels of metal HAPs calculated at twice the Eagan stack testing values, and PM/PM_{10} and lead set at the proposed BACT levels. Since EnviroFocus has elected to use Eagan stack testing to estimate actual PM/PM_{10} lead, and metal HAP emissions, Current Actual PM/PM_{10}, lead, and metal HAP emissions may be calculated using the Eagan emission factors and operational information for the Tampa facility. During the issuance of Draft Permit No. 0570057-015-AC for this facility, a 95% capture efficiency was used to estimate PM/PM_{10} and lead emission that could potentially escape the furnace building enclosure. Therefore, please resubmit Current Actual emission estimates PM/PM_{10} and lead for the Tampa facility calculated over a 24-month period in which the Blast Furnace a the Tampa facility actually emitted the pollutant, which is representative of normal operation of the Tampa facility's Blast Furnace using the actual production rates, along with site-specific emission factors based upon all stack test conducted at the Tampa facility during at least a five year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit (Rules 62-210.200(11)(a), F.A.C. and 62-210.370(2)(d), F.A.C.0. Current Actual metal HAP emissions may be calculated using Eagan emission factors, as long as the operational and production data is from the Tampa facility's Blast Furnace, and calculated in accordance with Rules 62-210.200(11)(a), F.A.C. and 62-210.370(2)(d), F.A.C. Future Actual PM/PM_{10} and lead emissions may be estimated using the unit specific allowable emissions pursuant to Rule 62-*

210.200(11)(b), while metal HAP Future Actuals shall be set equal to the potential emissions using the Eagan emission factors, and the physical and operational design of the proposed Blast/Reverb Furnace and building enclosure (Rules 62-210.200(244), F.A.C and 62-210.200(11)(c), F.A.C.). Please resubmit the above calculations and revise the Application accordingly.

See responses to EPC-3 and EPC-6 above. Also, metal HAPs were estimated for the Torit stack as shown in Table 10; however, they weren't mentioned in the text in Section 2 as their magnitude is extraordinarily small. Finally, the building enclosure is expected to capture 100% of the furnace and refining kettle fugitive emissions, so no building fugitives were estimated.

EPC-8. *On Page 8, Section of the Application it is stated that, "The soda ash handling system consists of a small Soda Ash Receiving Silo for receiving soda ash by truck and two larger Soda Ash Process Silos for distributing the soda ash to the desulfurization process and the sulfur dioxide scrubber". It is also stated that, "Emissions from these silos consist of a particulate matter, which will be controlled by bin vent filter (fabric filters). Emissions were estimated using an assumed outlet concentration from the bin vent filters of 0.005 gr/dscf, which will also be proposed as the BACT limit for these devices". However, on Pages 162 and 177, Section B, Emission Unit Capacity Information of the Application, it specifies a maximum process rate for all three silos as 50 tph. Furthermore, on Pages 168 and 181, Section F1, Emission Unit Pollutant Detail Information, it specifies potential PM/PM_{10} emissions of 0.03 lb/hour and proposed PM/PM_{10} BACT limit of 0.005 gr/dscf. Using a 0.27 lb/ton controlled PM emission factor from a similar type of bulk material, such as cement, from AP-42, Table 11.12-2, the specified loading rate, and the 650 dscfm design flow rate listed on Pages 165 and 178 of the Application, yields a controlled PM grain loading in excess of 0.005 gr/dscf. Please provide reasonable assurance pursuant to Rule 62-4.070(10, F.A.C. in the form of bin vent design information, A/C ratios, test results, emission calculations, and or manufacturer's guarantees that the emission units operating at the maximum loading rate can meet the proposed PM/PM_{10} BACT limit of 0.005 gr/dscf. In addition, please revise the application and Tables accordingly, and provide estimates of the Baseline Actual and Potential emission emissions in accordance with Rules 62-210.200(36)(b), F.A.C., 62-210.200(244), F.A.C and 62-210.370(2)(d), F.A.C.*

Information supplied by the vendor to support the use of this emissions estimate is included as Attachment L. As shown in the attachment the anticipated inlet to the control device is 50 gr/dscf and the efficiency is expected to be 99.99%. Based on these values, the outlet concentration from the filters is expected to be 0.005 gr/dscf.

EPC-9. *On Page 8, Section 2.8.1 of the Application it provides a description of the Plastics Plant. However, there is no explanation of how the plastic chips will be transferred from the battery breaker to the wet hammer mill to the melter and extruder, and on to the spin dryer. Please explain, and provide a process flow diagram in accordance with Rules 62-4.055(1), F.A.C and Rule 62-4.070(1), F.A.C. In addition, on Page 23, Section 4.8.1 of the Application, EnviroFocus proposes that "no controls" be proposed as PM/PM_{10} BACT, although the potential emissions are estimated at 0.53 tpy. Rule 62-212.400(10)(c), F.A.C. requires that the owner or operator of a major modification shall apply BACT for each PSD pollutant which would result in a significant net emissions increase at the source (This requirement applies to each proposed emission unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit). Dust collectors and Fabric filters are typically proposed as RACT and/or BACT for material handling operations. Please* *provide a "top-down" cost analysis of the control technologies applicable to this emission unit in accordance with Rules 62-212.400(10)(c), F.A.C. and 62-212.400(4)(c), F.A.C.*

Process flow diagrams of the plastics plant are included in Attachment M. As shown in the diagrams, all of the processes up to the extruder are wet processes and no emissions are expected. The emissions estimates given for the plastics plant represent emissions from the extruder itself. Downstream of the extruder the plastic is in a pellet form and the processes are not expected to produce any emissions. In order to accommodate the BACT requirement for the extruder, EnviroFocus will route all air from the plastics plant area through the battery breaker scrubber, which has a BACT particulate limit of 0.005 gr/dscf.

EPC-10. *On Page 8, Section 2.8.2 of the Application it states, "EnviroFocus will install a total of four Plastic Pellet Silos for off-loading to truck and railcar. Two of the silos will be dedicated to truck loading and two for railcar loading. The silos will emit minor amounts of particulate matter when being filled. The particulate matter will be controlled by bin vent filters atop the silos. The emissions were estimated based upon an assumed outlet concentration of 0.005 gr/dscf. This factor will be proposed as BACT for these emission units". Please provide reasonable assurance pursuant to Rule 62-4.070(1), F.A.C. in the form of bin vent design information, A/C ratios, test results, emission calculations, and or manufacturer's guarantees that the emission units operating at the maximum loading rate (1.75 tph) can meet the proposed PM/PM_{10} BACT limit of 0.005 gr/dscf.*

The text in Section 2.8.2 is incorrect regarding the proposed BACT limit for the Plastic Pellet Silos. As shown in Table 4.1, the intended BACT limit for these sources is 0.001 gr/dscf. In regards to assurances that the bin vent filters will be capable of complying with this limit, Attachment N is included from the designers of the facility.

EPC-11. *On page 35, Section 5.4.1 of the Application, states that, "Background monitoring data was used to represent the potential impact that local area and mobile sources could have on the area of significant impact. The monitoring data was obtained from USEPA Air Quality System, and summarized in Table 5-13. Two sets of lead monitoring data were presented." These two sites are Site ID 120571075 located at 6700 Whiteway Drive in Tampa, and Site ID 120571073 located adjacent to the EnviroFocus facility. Site ID 120571073 is the Patent site located at 6811 East 14^th^ Avenue in Tampa. It was stated further in the section that the Site ID 120571075 monitor was not for regulatory use and instructed to use another lead monitor, Site ID 120571073, located adjacent to the EnviroFocus facility, recognizing that the use of monitoring data from this location would essentially double-count the impacts from the existing operations of the EnviroFocus facility. However, there is a third lead site that has monitoring data. The site ID is 120571066 and is the Gulf Coast Lead site located at 1700 North 66^th^ Street in Tampa also adjacent to the EnviroFocus facility. While EPC staff recognize that there may be a some impact from the EnviroFocus facility imbedded in the data from these two adjacent lead monitors (Site ID 120571073 and Site ID 12057166) if they are used to represent background data, the EnviroFocus facility is surrounded by several other significant lead sources that are no longer in operation (Florida Steel, David Joseph's), but have left a significant amount of deposition that could potentially be impacting these monitors. In addition, Rule 62-212.400(5)(a), F.A.C. states that the owner or operator of the proposed source or modification shall demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions (including secondary emissions), would not cause or contribute to air pollution in violation of any ambient air quality* *standard in any air quality control region. 40 CFR 50.1(e) defines ambient air as the portion of the atmosphere, external to buildings, to which the general public has access. Since both adjacent lead monitors (Site ID 120571073 and Site ID 120571066) provide access to the public, please explain why Site ID 120571066 located at 1700 North 66th Street in Tampa should not be used to represent the current background lead levels for the purpose of modeling in order to provide reasonable assurance of compliance with Rule 62-212.400(5)(a), F.A.C.?*

The measurements taken by either of these monitors include the background concentration in the area, the impact from neighboring sources, and the impact from the existing EnviroFocus facility. The dispersion modeling being performed as part of the permitting process includes the impact from neighboring sources and the impact from the proposed EnviroFocus facility. In order to show compliance with the NAAQS for lead, the predicted concentrations from the model are added to the selected monitored background value and the result is compared to the ambient standard for lead. As discussed in the permit application, using a monitor that is near the facility, such as the one located at Site ID 120571073, "double counts" the impact from the plant, not to mention "double counting" neighboring sources. If the monitor at Site ID 120571066 were to be used in this analysis, it would only serve to increase the "double counting" of the plant's impact as it is located closer to the plant. The use of Site ID 120571073 is still quite conservative when compared with data from another lead monitor located on 10 km from the plant (Site ID 120571075), for which the maximum recorded quarterly average is only 0.01 ug/m^3. Using the maximum quarterly average of 0.39 ug/m^3 from Site ID 120571073 as "background" in the impact analysis more than accounts for the effects of deposition by virtue of its "double counting".

EPC-12. *On Page 35, Section 5.4.1 of the Application, states that, "Neighboring sources in the vicinity of the proposed source, as defined under the PSD program, include any nearby sources within the area of significant impact and any sources outside this area but within 50 kilometers of the area which could have a significant impact on receptors within the area of significant impact". It is further stated that, "All facilities with emissions of lead, NO_2 PM and PM_{10} within 50 kilometers of a significant impact area were identified by the FDEP and their potential emissions , annual allowable emissions, hourly potential emissions, and hourly allowable emissions ere provided". The narrative states that Table 5-14 summarizes the facilities with their respective potential emissions. A review of the Table, however, reveals several significant facilities that list no lead emissions. These include Tampa Electric Company's Big Bend Facility (Facility ID 0570039), which according to our calculations, have potential lead emissions of approximately 3.5 tpy using emission factors published in AP-42, Table 1.1-17, and Gulf Coast Metals near the EnviroFocus facility, which according to our calculations, have potential lead emissions of approximately 0.2 tpy using an emission factor published by the State of Michigan's Department of Environmental Quality. Please review the table, revise the emission calculations, and update the model accordingly.*

The lead emissions from these two sources have been added to the lead model. Revised modeling tables and files are being provided electronically to DEP under separate cover.

PROPOSED: EFT PHASE II

Attachment A

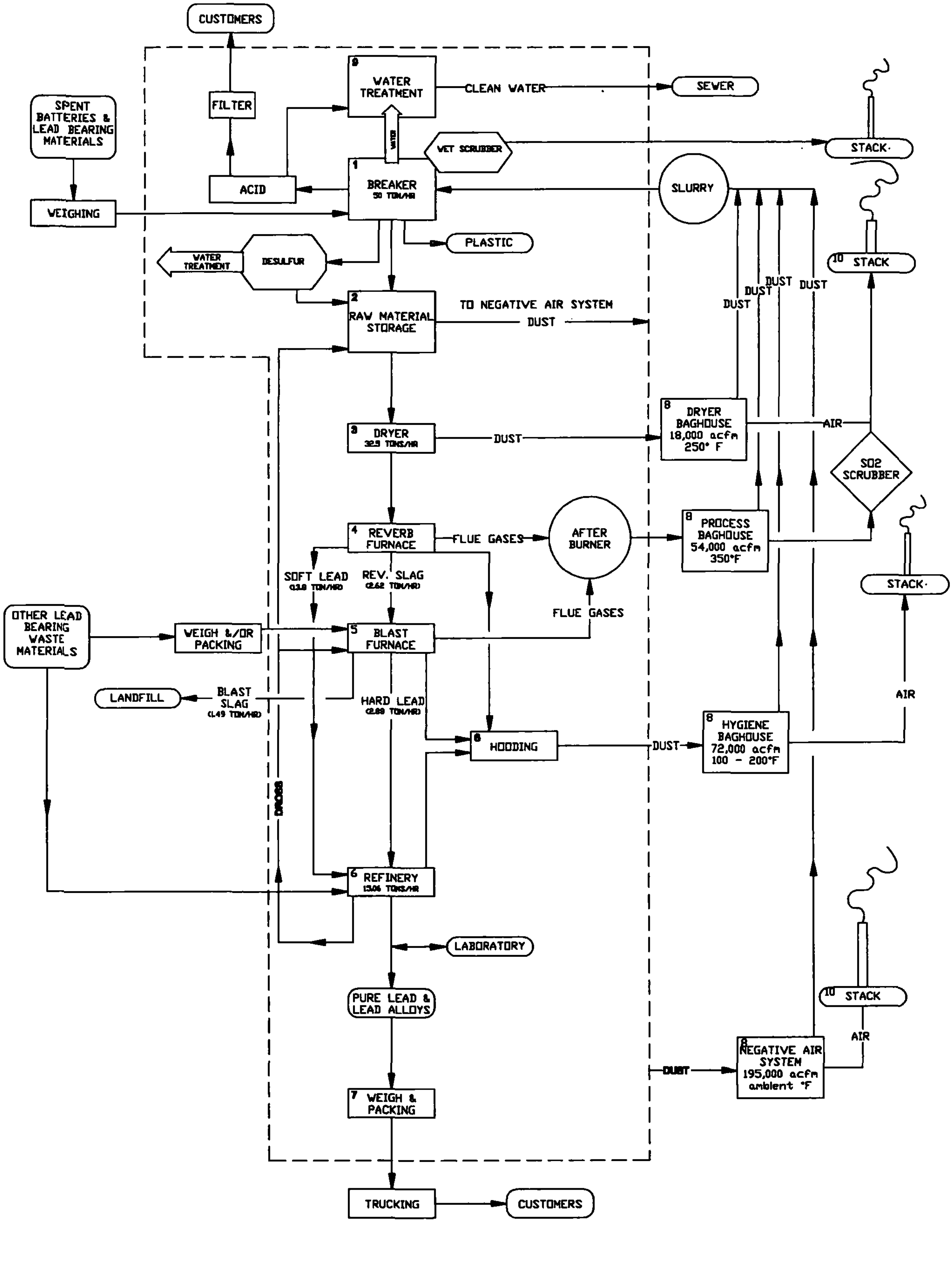
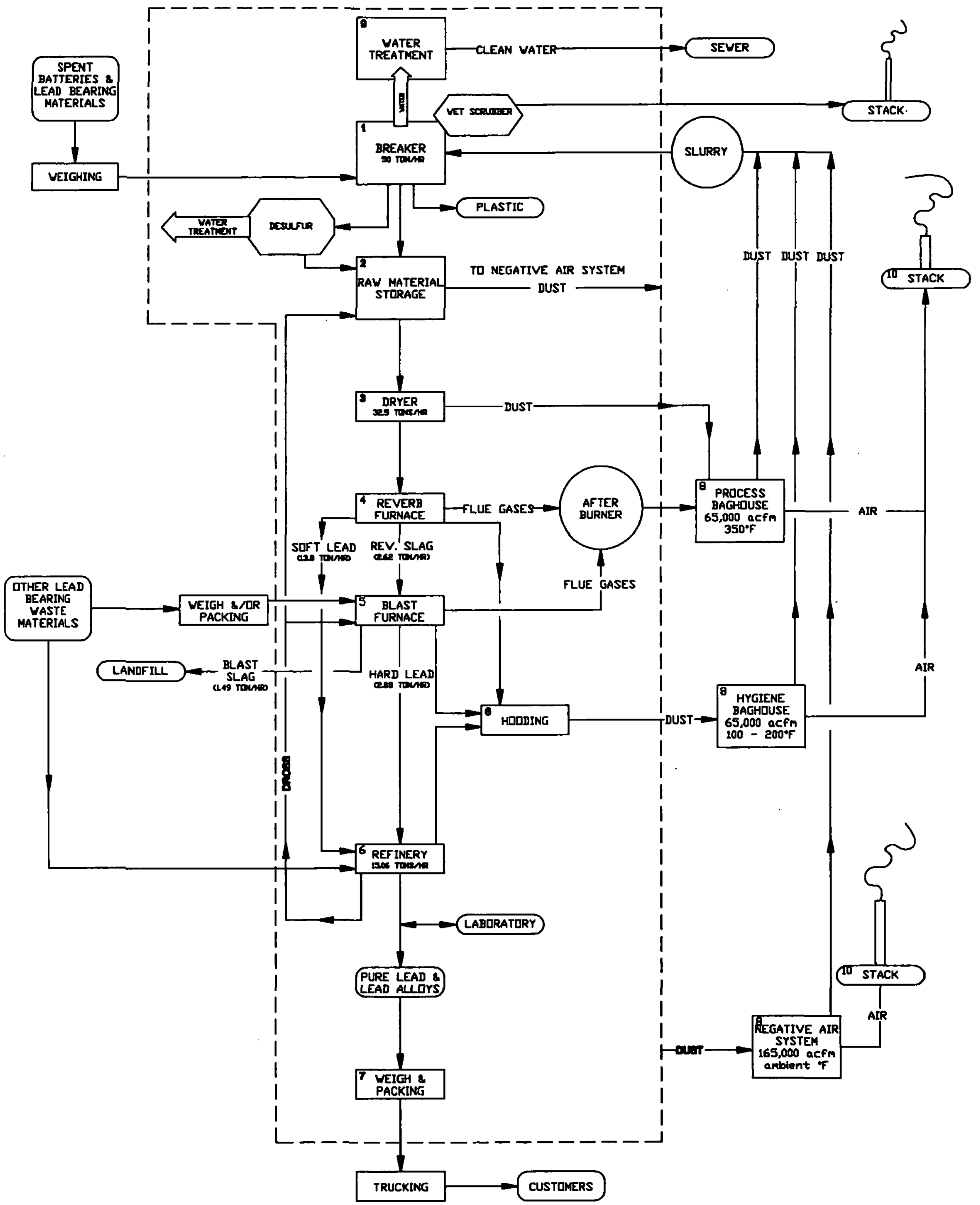


FIGURE 1-3

GOPHER PROCESS

Attachment B



Attachment C

Comparison of Emissions (ton/yr)

Process/Stack	EnviroFocus - Tampa						Gopher - Eagan					
	PM10	VOC	NOx	CO	SO2	Pb	PM10	VOC	NOx	CO	SO2	Pb
Soda Ash Silos	0.12						0.12					
Plastics Pellet Silos	0.07						0.07					
Breaker Scrubber	3.38				1.73	0.30	3.38				1.73	0.30
Process Stack	8.45	0.24	65.04	839.96	732.01	0.19	NA	NA	NA	NA	NA	NA
Hygiene Stack	11.74		62.76		34.78	0.27	NA	NA	NA	NA	NA	NA
Combined Process/Hygiene Stack	NA	NA	NA	NA	NA	NA	18.23	0.24	127.80	839.96	1457.68	0.42
Building Ventilation Torit Stack	19.03					0.08	16.11					0.07
Refinery Combustion Stacks	1.33	0.96	8.76	14.72	2.89	0.09	1.33	0.96	8.76	14.72	2.89	0.09
Plastics Plant	0.53	1.23					0.53	1.23				
Propane Vaporizer	0.03	0.03	1.10	0.19	0.09		0.03	0.03	1.10	0.19	0.09	
Emergency Generator	0.00	0.00	0.96	0.07	0.15		0.00	0.00	0.96	0.07	0.15	
Slurry Heaters	0.05	0.04	1.38	0.55	0.11		0.05	0.04	1.38	0.55	0.11	
Plantwide Totals	**44.72**	**2.50**	**140.00**	**855.49**	**771.76**	**0.93**	**39.84**	**2.50**	**140.00**	**855.49**	**1462.65**	**0.88**

Attachment D

Blast Furnace Charge Materials

The following materials may be charged to the Blast Furnace. The estimated lead content is shown in percent following the description of the material.

Auto battery dry w/o cover 60% lead
Auto battery dry with cover 58%
Auto battery wet skids 52%
Auto battery 50%
Battery cases w/bushings 10%
Battery plates wet 70%
Calcium dross 75%
Dross 75%
Gell cells 50%
Glass batteries 50%
Grids 90%
Industrial batteries 50%
Industrial sleeves 65%
Lead oxide 80%
Mixed alloy dross 75%
Paste filter press 50%
Paste pits 50%
Railroad batteries 50%
Wheel weights 75%
Whole auto battery skids 52%
Sump muds 70%
Stacking boards 5%
Ball mill dusts 95%
Pasting/roller belts 5%
Envelopes and separators 5%
Contaminated skids/pallets 0.5%
Baghouse dust 50%
Sandblasting dust .25%
Wastewater sludge 1%
Floor sweepings 5%
Unusable oxides 95%
PPE 1%
Baghouse bags/air filters 30%
Sal ammoniac solder flux ?
Radiator sludge 5%
Lead bearing glass 1%
Leaded x-ray shielding 90%
Lead contaminated waste/rags 1%
Shooting range sand/soil 5%
Paint chips 1%
Rubber bullet traps 90%
Vegetative extraction 0.1%
Contaminated cardboard/paper/shrinkwrap 1%

Attachment E

TABLE A-6. EMISSIONS SUMMARY FOR SCHUYLKILL METALS (Continued)

Schuylkill Facility	Run 1	Run 2	Run 3	Avg.		Sampling Location	Control Efficiency %	Sampling Method	Test Date
Lead	4.40	2.30	2.13	2.94	kg/hr	Baghouse inlet		Multi-Metals	11/92
	102.0	55.5	48.7	68.7	mg/m^3				
	5.80E-02	3.13E-02	2.68E-02	3.87E-02	kg/hr	Baghouse outlet		EPA 12	11/92
	1.03	0.53	0.45	0.67	mg/m^3		98.69		
	4.40E-03	3.32E-02	4.68E-02	2.81E-02	kg/hr	Scrubber outlet		EPA 12	11/92
	0.36	0.57	0.70	0.54	mg/m^3		27.30		
	0.01	0.01	0.02	0.01	kg/hr	Baghouse outlet		Multi-Metals	11/90
	0.1	0.1	0.2	0.1	mg/dscm				
Manganese	5.25E-01	2.63E-02	1.56E-02	1.89E-01	kg/hr	Baghouse inlet		Multi-Metals	11/92
	12.20	0.64	0.36	4.40	mg/m^3				
Mercury	1.40E-03	1.80E-03	1.30E-03	1.50E-03	kg/hr	Baghouse inlet		Multi-Metals	11/92
	3.17E-02	4.35E-02	2.95E-02	3.49E-02	mg/m^3				
Nickel	< 9.1E-03	< 4.5E-03	< 4.5E-03	< 6.0E-03	kg/hr	Baghouse inlet		Multi-Metals	11/92
	< 0.21	< 0.11	< 0.10	< 0.14	mg/dscm				
Hydrochloric Acid	0.03	0.03	0.02	0.02	kg/hr	Scrubber inlet		EPA 26A	11/92
	0.288	0.326	0.196	0.270	mg/m^3				
	<3.40E-03	6.68E-02	<3.40E-03	<2.45E-02	kg/hr	Scrubber outlet		EPA 26A	11/92
	< 0.019	0.374	< 0.017	< 0.137	mg/m^3		* -2.65		
Chlorine	1.51E-02	1.16E-02	7.10E-03	1.13E-02	kg/hr	Scrubber inlet		EPA 26A	11/92
	8.66E-02	6.41E-02	4.54E-02	6.54E-02	mg/m^3				
	3.22E-02	2.04E-02	3.53E-02	2.93E-02	kg/hr	Scrubber outlet		EPA 26A	11/92
	9.38E-02	5.86E-02	9.30E-02	8.18E-02	mg/m^3		* -160.06		

* Because emission levels of hydrochloric acid and chlorine are near method detection limits, calculated control efficiencies may be inaccurate.

Attachment F

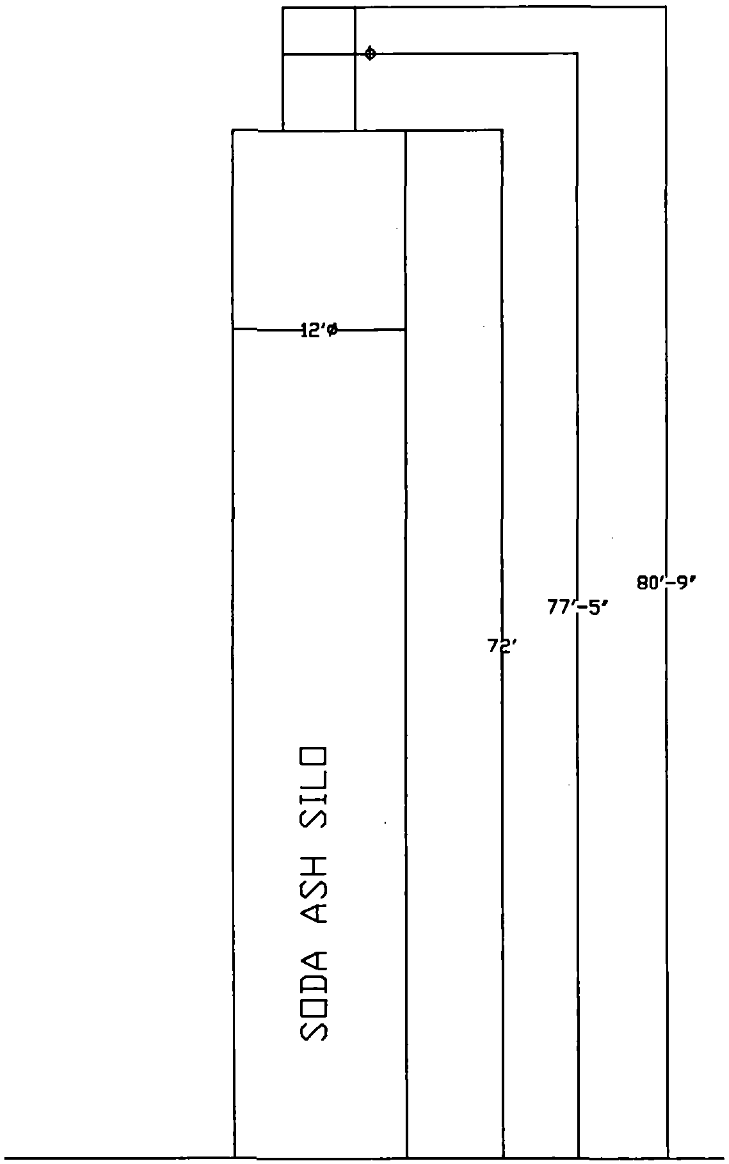
Facility Name	Location	Basic Technology	Wet SO2 Scrubber	Enclosed Smelting OPS	Limits			
					Emission Source/Unit	Pb	PM	NOx
Sanders Lead Company	Troy, Alabama	Blast Only	No	No	Blast Furnaces, No. 1 w/ afterburner, No.2 w/ afterburner and agglomeration furnace and baghouse (Stack 1) and baghouse (Stack 4)	0.00087 gr/dscf		
					Blast Furnaces, No. 3 w/ afterburner, No.4 w/ afterburner and baghouse (Stack 5) and baghouse (Stack 4)	0.00087 gr/dscf		
					Alloying Kettles vented through baghouse (Stack 5) and Alloying Kettles Heating System vented through (Stack 4)	0.00087 gr/dscf		
					Slag Treatment Facility with baghouse (Stack 10)	0.00034 gr/dscf		
Exide	Vernon, California	Reverb/Blast	Yes	Yes	Feed Drying System (Dryer Feed Hopper, Conveyor Belts)	2.0 mg/dscm		
					Rotary Dryer, Natural Gas, Feed Drying, 8 MMBTU/HR	2.0 mg/dscm	0.1 gr/scf	130 lbs/MMSCF natural gas
					Lead Smelting System (Ram Feeder, Tapping Port, Launder, Slag Handling System)	2.0 mg/dscm		
					Reverb Furnace	2.0 mg/dscm	0.022 gr/scf	
					Lead Slag Processing System Hoppers	2.0 mg/dscm		
					Lead Slag Processing System Furnaces	2.0 mg/dscm	0.022 gr/scf	0.077 lbs/ lb material
					Fugitive Dust Control System (Baghouses, Heat Exchangers, Afterburner, Scrubbers)	2.0 mg/dscm		
					Cupola and Hard Lead Refinery Furnaces APCS, Reverb and Soft Lead Refinery Furnaces APCS, Reverb Furnace Feed Room APCS, Cupola Furnace Feed Room APCS, Reverb Furnace Dust Conveying System, Cupola Furnace Dust Conveying System, Hard Lead Dust Collection System, Soft Lead Dust Collecting System, Cupola Furnace Feed Room Dust Collecting System, Reverb Furnace Feed Room Dust Collecting System, Sump Slurry Handling System, Dust Transfer Conveying System, Reverb Furnace Feeder Pit System, Kettle Gallery Sump System, Bulk Materials Storage System	2.0 mg/dscm		
Quemetco	City of Industry, California	Reverb/EAF	Yes	Yes	Battery Crusher	2.0 mg/dscm		
					Feed Drying System (Furnace Feed Hopper, Conveyor Belts)	2.0 mg/dscm		
					Rotary Furnace	2.0 mg/dscm	0.1gr/scf	
					Lead Sweating System (Tapping Port, Conveyor Belts)	2.0 mg/dscm		
					Reverb Furnace	2.0 mg/dscm	0.022 gr/scf	133.64 ppmv LPG
					Lead Slag Processing System (Tapping Port, Baghouse)	2.0 mg/dscm		
					Electric Lead Slag Furnace	2.0 mg/dscm	0.022 gr/scf	0.021 lbs/ton material
					Lead Metal Refining System (Baghouse, Hoppers)	2.0 mg/dscm		
					Lead Metal Refining System Furnaces	2.0 mg/dscm	0.1 gr/scf	60 ppmv; 0.077 lbs/lb material
					Fugitive Dust Control System (Baghouses, Floor Sweep); Reverb Furnace Sanitary APCS; Reverb Furnace Process APCS	2.0 mg/dscm		
					Waste Dust Handling System; Bulk Material Handling and Processing	2.0 mg/dscm		
Exide	Muncie, Indiana	Reverb/Blast	Yes	Yes	Rotary Dryer	0.5 mg/dscm	4.5 lb/hr	
					Reverb Furnace; Blast Furnace	1.0 mg/dscm	5.0 lb/hr	
					Reverb and Blast furnace charge points hood emissions	0.5 mg/dscm	3.0 lb/hr	
					Pig Casting; Pot Furnaces	0.5 mg/dscm	5.25 lb/hr	
					Battery Crusher	0.5 mg/dscm	2.25 lb/hr	
					Soda ash wash and silos		0.23 lb/hr	
					Material Handling/Slag Crusher/Melting Pots	0.5 mg/dscm	2.25 lb/hr	

Facility Name	Location	Basic Technology	Wet SO2 Scrubber	Enclosed Smelting OPS	Limits			
					Emission Source/Unit	Pb	PM	NOx
Quemetco/RSR	Indianapolis, Indiana	Reverb/EAF	Yes	Yes	Electric Arc Slag Reduction Furnace (exhaust to Stack/Vent S-111)	0.00087 gr/dscf (2.0 mg/dscm)	0.0172 gr/dscf	
					Reverb. Furnace (exhaust to Stack/Vent S-111)	0.00087 gr/dscf (2.0 mg/dscm); 0.0007 gr/dscf of exhaust	0.016 gr/dscf	
					Stack/Vent S-111	0.00087 gr/dscf (2.0 mg/dscm); 0.0007 gr/dscf of exhaust		
					EAF (exhaust to Stack/Vent S-100)	0.00087 gr/dscf (2.0 mg/dscm); 0.0007 gr/dscf of exhaust	0.023 gr/dscf	
					Rotary Dryer (exhaust to Stack/Vent S-100)	0.00087 gr/dscf (2.0 mg/dscm); 0.0007 gr/dscf of exhaust		
					Stack/Vent S-100	0.00087 gr/dscf (2.0 mg/dscm); 0.0007 gr/dscf of exhaust	0.03 gr/dscf	
					Stack/Vent S-112, S-113, S-114, S-115, S-116, S-117, and S-118		0.03 gr/dscf	
					Roof Vent Baghouses #1, 2, 3, 4 and 5 (exhaust to Stack/Vent S-101, S-102, S-103, S-104, and S-105)	0.00087 gr/dscf (2.0 mg/dscm)		
					Stack/Vent S-101, S-102, S-103, S-104, and S-105	0.00022 gr/dscf (0.5 mg/dscm)	0.03 gr/dscf	
					HVAC system, emergency generators, battery wrecker, outside storage bins, soda ash silos, wet scrubber		0.03 gr/dscf	
Gopher Resources	Eagan, Minnesota	Reverb/Blast	No	Yes	East Reverb and blast furnace	0.00087 gr/dscf		
					Process Fugitive Sources	0.00087 gr/dscf		
					Fugitive Emissions from Raw Material Handling, Blast Furnace and Reverb Areas	0.00087 gr/dscf		
					Main Stack	0.00087 gr/dscf	0.022 gr/dscf	
Doe Run Buick Smelter	Boss, Missouri	Reverb/Blast	No	No	Blast Furnace; Agglomeration Feed System; Agglomeration Furnace; Mold Pouring; Storage Bins; Reverb Furnace; Dross Hopper; Rotary Feeder; Reclamation Furnace; Wash Station; Refinery Kettles; Burn Kettles; Casting Machines	*0.00087 gr/dscf (2.0 mg/dscm)*	*0.022 gr/dscf*	
					Process Fugitive Sources (furnaces, rotary melter, dross plant, refinery, wash station)	0.00087 gr/dscf (2.0 mg/dscm)		
					Open Storage Fugitives; Battery Breaking; Acid Collection; Resuspension Fugitives	0.00087 gr/dscf (2.0 mg/dscm)		
					Slag Treatment; Soda Ash Surge Bin and Sodium Sulfate Silo; Soda Ash Silo; Sodium Sulfate Recovery System; BDC Wet Scrubber; Drum Shredder System;		0.30 gr/scf	
					BDC Boiler		0.26 lbs per million BTU	
					Refinery Kettle Burners		0.39 lbs per million BTU	
Revere Smelting	New York	Reverb	Yes	Yes	Reverb Furnace	0.00087 gr/dscf	0.022 gr/dscf	
					Rotary Kiln		0.05 gr/dscf	5.04 lbs/hr
					Slag Casting, Refining Kettles, Material Handling Equipment; Sodium Sulfate Crystallizer Operations		0.05 gr/dscf	
					Process Fugitive Sources	0.00087 gr/dscf		
East Penn	Lyon station, Pennsylvania	Reverb/Blast	Yes	Yes	Blast Furnace	0.00087 gr/dscf		
					Blast Furnace Ventilation System	0.00087 gr/dscf		
					Material Storage Room Ventilation	0.00087 gr/dscf		
					Battery Breaker and Separation Operation	0.00087 gr/dscf	3.7 lb/hr for automotive batteries	
					Six Refining Kettles	0.00087 gr/dscf	0.04 gr/dscf	
					Reverb Furnace	0.0004 gr/dscf		0.70 lbs/million BTU of heat
					Reverb Furnace Ventilation	0.0001 gr/dscf	0.04 gr/dscf	
					Scrap Dryer	0.00087 gr/dscf	0.01 gr/dscf	0.11 lb/million BTU of heat
					Slag Storage Area	0.00087 gr/dscf	0.008 gr/dscf	
					Miscellaneous Combustion Sources		0.04 gr/dscf	4.49 tons during any 12 month consecutive period

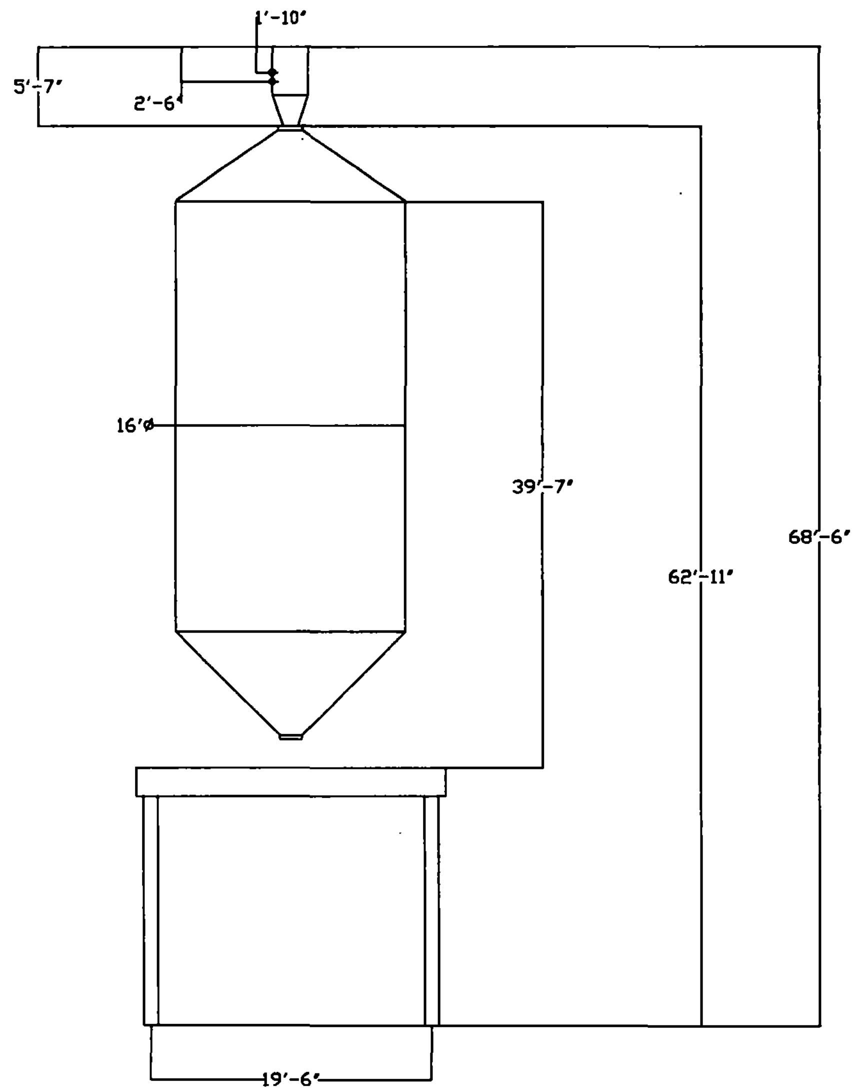
Facility Name	Location	Basic Technology	Wet SO2 Scrubber	Enclosed Smelting OPS	Limits			
					Emission Source/Unit	Pb	PM	NOx
Exide	Reading, Pennsylvania	Reverb/Blast	Yes	No	Battery Shredder and Hammer Mill	0.00087 gr/dscf	0.04 gr/dscf	
					Smelter Building Ventilate	0.00005 gr/dscf		
					Slag Cooling and Storage	0.0004 gr/dscf	0.04 gr/dscf	
					Raw Material Storage	0.00044 gr/dscf		
					Plant Roadways	0.00044 gr/dscf		
					Pallet Shredder		0.04 gr/dscf	
					Slag Crusher	0.0001 gr/dscf	0.04 gr/dscf	
					Blast Furnace (new and old) and Reverb Furnace (new and old)	0.00087 gr/dscf	0.22 gr/dscf	
					Smelter Ventilation (#1 and 2); Smelter Building Ventilate	0.00087 gr/dscf	0.04 gr/dscf	
					Refining Kettles	0.00087 gr/dscf	0.04 gr/dscf	
					Lime Storage Bin WWTP; Lime Storage Smelter Scrubber		0.04 gr/dscf	
					Lime Slaker		0.01 gr/dscf	
Exide Technologies	Baton Rouge, Louisiana	Reverb/Blast	No	No	Blast Furnace and Reverb Furnace	2.0 mg/dscm	0.022 gr/dscf	
					Baghouses	2.0 mg/dscm	0.022 gr/dscf	
					Kettles (Process Fugitive Emissions)	2.0 mg/dscm	0.022 gr/dscf	
Exide	Frisco, Texas	Reverb/Blast	Yes	No	Kettles; Blast Furnace; Blast Furnace Process Fugitive Sources; Feed Dryer Loading Hopper; Reverb Furnace Process Fugitive Sources; Supplemental Ventilation System;	0.00087 gr/dscf (2.0 mg/dscm)		
					Feed Dryer	0.00087 gr/dscf (2.0 mg/dscm)		
					Reverb Furnace	0.00087 gr/dscf (2.0 mg/dscm)		
Exide	Canon Hollow, Missouri	Blast Only	Yes	No	Not Currently Available			
Exide	Columbus, Georgia	Reverb/Blast	No	Yes	Rotary Material Dryer	0.12 lb/hr	1.2 lb/hr	
					Reverb Furnace	0.08 lb/hr	0.82 lb/hr	
					Rotary Furnace	0.07 lb/hr	0.71 lb/hr	
					General Ventilation Baghouses	0.39 lb/hr	5.9 lb/hr	
					Smelter Fugitives	0.08 lb/hr		
					Chemical Processing	0.02 lb/hr	1.25 lb/hr	
					Refining Kettles	0.20 lb/hr	5.90 lb/hr	
					Central Traffic	0.00356 lb/hr		
					Chemical Processing Comfort Exhaust 1 and 2	0.012 lb/hr		
					Battery Receiving		0.36 lb/hr	
					Petroleum Coke Silo		0.17 lb/hr	
					Soda Ash Slurry Tank		0.37 lb/hr	
					Sodium Sulfate Crystallizer Dryer, Sodium Sulfate Storage Silo #1 and #2		0.43 lb/hr	
					Sodium Sulfate Weigh Silo		1.76 lb/hr	
					Sodium Sulfate Loadout Reclaim		1.71 lb/hr	

Pb = lead
PM = particulate matter
NOx = nitrogen oxides
reverb = reverberatory furnace
blast = blast furnace
EAF = electric arc furnace
gr/dscf = grains per dry standard cubic foot
lbs/hr = pounds per hour
scf = standard cubic foot
mg/dscm = milligrams per dry standard cubic meter

Attachment G



SODA ASH SILO



PLASTICS SILO QTY: (2)

Area Growth Impact Since 1977

Rule 62-212.400(4)(e), F.A.C. requires that PSD permit applications include information regarding the air quality impacts from growth that has occurred since 1977 in the area the source or modification would effect. According to the Significant Impact Analysis presented in Section 5.3.3 of EnviroFocus's PSD permit application the area impacted by the lead emissions from the proposed modification extends to a radius of 2.7 km from the plant site. The areas of significant impact for particulate matter and nitrogen oxides extend to a radius of 1.3km and 1.2 km, respectively. Therefore, the area affected by the project is limited to less than 2 miles of the site located in the eastern part of the City of Tampa.

The earliest estimate of the population following the 1977 baseline year occurred in 1980. According to U.S. Census data, Tampa's population in 1980 was 271,577. The city saw moderate growth over the next twenty years, such that the population grew to 303,447. As of 2007, the population is estimated to be 332,888. This represents a growth of about 23% over the last 30 years. However, despite this growth and the accompanying increase in industrial and mobile sources, the air quality with respect to the significant pollutants, lead, particulate matter, and nitrogen oxides, has steadily improved in the area.

This improvement is evidenced by data obtained from ambient monitors located in Tampa. Although the monitoring network does not extend as far back as 1977, there is sufficient data, beginning as early as 1984 to show the reduction in ambient pollutant concentrations present in the area. For example, according to monitoring data maintained by Florida Department of Environmental Protection, a lead monitor was operated at a site in Tampa near Seminole School at 6201 Central Avenue from 1984 until 1993. During that time the average ambient lead concentration recorded by the monitor dropped from 0.90 ug/m^3 to 0.001 ug/m^3. This was due primarily to the phasing out of leaded gasoline. Similarly, the earliest data available for the PM_{10} monitor that was used to establish the "background" concentration for EnviroFocus's PSD permit application appears in 1984. During that year the monitor recorded a first-high concentration of 131 ug/m^3 and second-high of 110 ug/m^3. In 2007, the monitor recorded lower first-high and second-high values of 126 ug/m^3 and 82 ug/m^3, respectively. Finally, the ambient concentration of nitrogen oxides has fallen from 0.013 ppm in 1990 down to 0.009 ppm in 2007 according to a monitor located at 5121 Gandy Boulevard.

These reductions in air pollutant concentrations indicate that the permitting programs implemented by the Florida Department of Environmental Protection and the Hillsborough County Environmental Protection Commission, along with improved environmental performance standards for mobile sources, have been effective in protecting the National Ambient Air Quality Standards for these three pollutants and preventing the excessive consumption of their PSD increments.

STANDARD OPERATING PROCEDURES FOR THE CONTROL OF FUGITIVE EMISSIONS

ENVIROFOCUS TECHNOLOGIES, LLC
1901 NORTH 66th STREET
TAMPA, FL 33619

REVISED DECEMBER 2006

INTRODUCTION

EnviroFocus Technologies, LLC (EFT), formerly Gulf Coast Recycling, Inc. (GCR), is a secondary lead smelter. The facility processes spent lead acid batteries. Battery components are separated and the lead-bearing materials are smelted in a blast furnace rendering a product known as blast lead. The blast lead is further refined to produce specific grades of lead for the manufacture of new batteries, ammunition, and other uses.

The facility has a Battery Breaking Operation, a Blast Furnace Operation, a Refining Operation, and a Materials Storage and Handling Area for lead-bearing materials.

EFT is committed to the operation of its facility in a manner that will comply with applicable federal, state, and county environmental regulations and in harmony with the surrounding community. GCR has operated at its present location for more than forty (40) years, and EFT expects to continue operation well into this century. Regulatory compliance is a corporate commitment. This commitment is vigorously reinforced throughout the company, from the top down.

PURPOSE

The purpose of this plan is to maintain effective fugitive controls to meet the requirements of the U.S. Environmental Protection Agency (EPA), the Florida Department of Environmental Protection (FDEP), and the Environmental Protection Commission of Hillsborough County (EPC).

The EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Lead Smelting (40 CFR 63 Subpart X) apply to this facility. This rule requires the owner to prepare and operate in accordance with a standard operating procedures (SOP) manual that describes the measures used to control fugitive emissions at the facility. The NESHAP requirements are also referred to as EPA Maximum Achievable Control Technology (MACT) standards for secondary lead smelters.

FDEP rule 62-296.601 requires lead-processing operations located within lead non-attainment or maintenance areas to employ reasonably available control technology (RACT) to control potential fugitive emissions at the facility. The RACT rule addresses measures that apply to areas and activities that are not addressed by the MACT rule or are more stringent than the MACT requirements. These measures are also covered in this SOP. Additionally, GCR entered into a Consent Order (CO), case No. 95-0728SKWO57, with the EPC which has specific requirements which are also incorporated into this SOP manual.

The EPC is the administrator of the aforementioned EPA and FDEP regulations and is authorized to issue facility construction and operation permits. All of the NESHAP, MACT, RACT, and CO requirements were incorporated as specific conditions into GCR's Title V Permit issued by the County and all future renewals. This SOP manual will also be incorporated, by reference, as a specific permit condition.

Potential sources of fugitive emissions at the facility include:

(1) Plant Roadways and Parking Areas

(2) Battery Breaking

(3) Blast Furnace Area

(4) Refining and Casting Area

(5) Materials Storage and Handling Area (Group Pile)

(6) Unpaved Outside Areas

OPERATING PROCEDURES

The following procedures will be used at EFT, at a minimum, for the control of fugitive emissions:

Plant Roadways and Parking Areas

Vehicular traffic areas are all paved and are periodically wetted down by a eleven (11) zone (see attached Site Layout) automatic sprinkler system. Each zone is setup with a timer and control valve that cycles the zone on several times a day. The timers are electronic programmable timers in lockable cases. Sprinkler operation will be noted on the Sprinkler Operation Log form on a daily basis. A copy of the form is included as Attachment 1. The sprinkler zones, approximate number of sprinkler heads, and on and off times are as follows:

Zone	Location	# Sprinklers	On/Off Time
1	North Parking Lot Fence	11	3 Min./12 Min.
2	Maintenance Shop and Fuel	3	3 Min./12 Min.
3	Pig Warehouse and N.E. Comer of Furnace	3	3 Min./12 Min.
4	Furnace Baghouses	4	3 Min./12 Min.
5	S.E. Wall Section	9	3 Min./12 Min.
6	S.W. Wall Section	15	3 Min./12 Min.

7	Wastewater Treatment Plant	4	3 Min./12 Min.
8	West Pavement Perimeter	7	3 Min./12 Min.
9	Northwest Pavement Perimeter	4	3 Min./12 Min.
10	Refining Area & Refining Warehouse	4	3 Min./12 Min.
11	Hygiene Building & Covered Parking	6	3 Min./12 Min.

The sprinklers cycle according to the following table. After the first fifteen minutes at least two zones will be on at all times.

ZONE 1--3 minutes			
ZONE 2--3 minutes			
ZONE 3--3 minutes			
ZONE 4--3 minutes			
ZONE 45--3 minutes			
ZONE 6--3 minutes	ZONE 1--3 minutes		
ZONE 7--3 minutes	ZONE 2--3 minutes		
ZONE 8--3 minutes	ZONE 3--3 minutes		
ZONE 9--3 minutes	ZONE 4--3 minutes		
ZONE 10--3 minutes	ZONE 5--3 minutes		
ZONE 11--3 minutes	ZONE 6--3 minutes	ZONE 1--3 minutes	
	ZONE 7--3 minutes	ZONE 2--3 minutes	
	ZONE 8--3 minutes	ZONE 3--3 minutes	
	ZONE 9--3 minutes	ZONE 4--3 minutes	
	ZONE 10--3 minutes	ZONE 5--3 minutes	
	ZONE 11--3 minutes	ZONE 6--3 minutes	ZONE 1--3 minutes
		ZONE 7--3 minutes	ZONE 2--3 minutes
		ZONE 8--3 minutes	ZONE 3--3 minutes
		ZONE 9--3 minutes	ZONE 4--3 minutes
		ZONE 10--3 minutes	ZONE 5--3 minutes
		ZONE 11--3 minutes	ZONE 6--3 minutes

Traffic paths shall be vacuumed three (3) times each day with a Tennant, or equivalent, vacuum sweeper, except when rain occurs or when areas are sufficiently wetted by the pavement sprinkler system. The employee parking lots will be vacuumed a minimum of three (3) times each week, unless prohibited by prolonged periods of rainfall. Records of the areas swept shall be included in documentation of sweeper operation. Sweeper operation will be noted on the Sweeper Operation Log form. Copies of the form are included as Attachment 2.

Battery Breaking Area

Partial walls surround this area on three (3) sides. The walls extend down from the roofline to approximately ten (10) feet from the top of the curbing that is around the entire floor area. Approximately three quarters of the east wall (the fourth wall) is directly adjacent to the west wall of the Materials Storage and Handling Area that provides a wall from the roof to the floor. Any wash-down water or process water from the operation gravity flows to a collection sump on the north side of the building. Water collected in the sump is pumped to the on-site wastewater treatment plant for treatment. The battery breaking area is washed down at least two times each day. The directed wash-down is noted on the daily operation log form and signed by the operator. A copy of the form is included as Attachment 3. Equipment leaving the roofed area are pressure washed or washed.

Blast Furnace Area

The Blast Furnace Area is partially enclosed with walls on the south, east and west sides that extend down from the roof to approximately fourteen (14') feet from the floor. The furnace is bordered on the south by the baghouses that are walled in and is bordered on the west (approximately 30 feet away) by the Materials Storage and Handling Area building. The furnace work area is washed/hosed down at least two times each day. Each wash-down will be noted on a shift operation form and signed by the operator. A copy of the form is included as Attachment 4. The wash-down water in the furnace area gravity flows to one of two floor sumps. The sumps are located on the east and west sides of the Blast Furnace Area. Water collected in these sumps will be pumped to the wastewater treatment plant for treatment. Equipment leaving the roofed area are pressure washed or washed.

Enclosures and hoods that are vented to a baghouse control potential process fugitive emissions in the blast furnace operation. The blast furnace slag tapping enclosure, the lead tapping hood and the blast furnace charging enclosure are vented to the furnace hygiene baghouse. Dust from the baghouses is conveyed via covered screws to a tank where it is weighed, slurried with water, and pumped to a reactor in the battery breaking area for desulfurization. The openings or faces of these hoods and enclosures meet the MACT face velocity requirements when access doors are in their normal operating position.

Refining and Casting Area

The Refining and Casting Area is also partially enclosed. The work area is washed/hosed down at least two (2) times each day. Each wash-down is noted on the daily operation form and signed by the operator. A copy of the form is included as Attachment 5. Wash-down water in the refining area is collected in a floor sump and pumped to the wastewater treatment plant for treatment. Equipment leaving the roofed area are pressure washed or washed.

Potential process fugitive emissions in the Refining and Casting Area are controlled by hoods over each of the four refining kettles and by enclosures for the dross receptacles. The hoods and enclosures are vented to a baghouse. The kettle hoods meet the MACT face velocity requirements when the access doors are in their normal operating position.

Molten lead is pumped from the kettles to one of two casting machines. A pre-set amount of lead is delivered to the pig molds through a star ladle at the front end of the casting machines. The star ladles are kept hot by a gas flame. A hood is provided over each star ladle to capture potential emissions. The face of the hood meets the MACT face velocity requirement.

Materials Storage and Handling Area (Group Pile)

The Materials Storage and Handling Area has walls from the roof to the floor on a four sides. There is an approximately 24' x 14' equipment access opening on the west side of the area. There is an approximately 12' x 13' loading/unloading ramp access opening on the north side of the area. Accumulated water in this area gravity flows to one of two floor sumps. There is a collection sump on the east wall near the southeast corner of the area and one sump on the north side of the area. Water collected in the sumps is pumped to the wastewater treatment plant for treatment. The pathways within this area will be wetted down as needed to prevent the generation of dust. The materials stored in this area are washed/wetted prior to storage and will remain moist even after long-term storage. Additional wetting of the stored material will be provided, if necessary, to prevent the generation of dust; however, it is not anticipated that additional wetting will be necessary.

The main entrance/exit to the Materials Storage and Handling Area is under a contiguous roof that provides covered access for equipment moving between the materials storage and handling, blast furnace, and refining areas. Forklifts and front-end loaders leaving the roofed area are pressure washed or washed. The form used to document the washing of the equipment is included as Attachment 6.

Unpaved Outside Areas

The unpaved areas of the facility are grassed and will be maintained as such. There will be no routine traffic in these areas. Equipment traffic in the grassed areas will be limited to access for maintenance and up keep or to effect repairs to equipment (i.e. pumps, motors) that are located off or at the edge of the paved areas.

ECLIPSE NO-BLOW BLAST TIPS

SERIES "K"

No-Blow Tips were specially designed to meet the need for a tip that would operate satisfactorily on any kind of gas. The flame will not blow off from these tips when used with the slow burning natural or bottle gases nor will they back-fire when used with the fast burning coke oven or water gas. They answer the need for a universal tip that would not have to be changed when the gas supply was changed. They operate best when used with correct mixtures of air and gas but will handle even widely incorrect and varied mixtures. They may be used in completely enclosed chambers without secondary air provided they are not allowed to over-heat. If ample secondary air is available, capacities may be as much as doubled. The standard tips are steel but heat resisting alloy tips can be supplied for higher operating temperatures.

APPLICATIONS

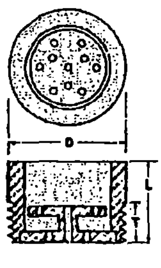
No-Blow Tips have been successfully used for fire-polishing, core ovens, baking ovens, various types of kettles, cookers, small boilers, low temperature annealing ovens, meat smokehouses, air heaters, and in many other installations where a large number of small flames were desirable.

No-Blow Tips may be used in clusters in special castings or arranged along pipes either straight or shaped. They may be screwed into the pipe directly or mounted in standard fittings such as ells or couplings. If mounted directly in the pipe, there is greater danger of preignition as the gas burning in the tip tends to heat the mixture in the pipe directly. If in doubt as to the suitability of No-Blow Tips for your application, send us a print or sketch giving all information on temperatures, kind of gas and cycles of operation, and we will gladly advise.

LIMITATIONS

No-Blow Tips should not be used where they will be subjected to radiant heat or any temperature above 750°F. unless alloy tips are used. With alloy, the temperature limit is around 1200°F. although care must be taken to avoid preignition.

DIMENSIONS & SPECIFICATIONS

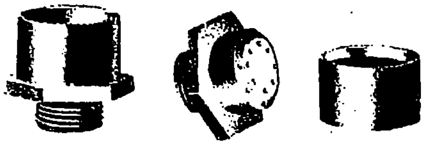


"NO-BLOW" TIP

Catalog Number	Size of Pipe Thread	Port Area Sq. In.	Capacities BTU/Hr.*	Dimensions			Weight Each Ounces
				L	D	T	
1-K	3/8	.0140	2,900	45/64	21/32	13/32	1/2
2-K	1/2	.0222	5,000	9/16	13/16	11/32	3/4
3-K	3/4	.0453	9,000	23/32	1-1/64	7/16	1-1/2
4-K	1	.0595	10,800	3/4	1-5/16	9/16	2-1/4
5-K	1-1/4	.0808	16,800	15/16	1-5/8	9/16	4-1/4
6-K	1-1/2	.1221	24,000	1	1-7/8	19/32	6

NOTE: All dimensions are in inches.
*Based on full gas/air ratios at 5" w.c., operating in enclosed space. If burning in open, increase capacities 20%.

ECLIPSE STANDARD STEEL TIPS



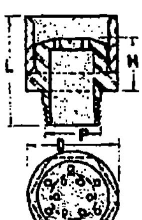
In both the commercial and industrial field, there is a large demand for various types of small blast burners. Most of these needs can be handled by a number of tips arranged in groups or combinations.

The Standard Steel Blast Tip consists of two pieces, a hexagonally shaped head with drilled ports and a protective steel ring. These tips are accurately machined and drilled and furnished only with 3/8" pipe thread.

The Standard Steel Tips are recommended for use in combustion chambers where they are not exposed to high radiant heat and the ambient temperature does not exceed 600°F. Where tips are being used in combustion work at higher temperatures and the chamber is not supplied with ample secondary air, alloy rings are recommended. For extreme cases, calorized steel is much superior and will have longer life.

Being small, Standard Steel Tips enable the engineer to make any shape of burner required to fit the job. They are used on pipe burners giving high capacity with exceptionally good turndown range. The cupped feature prevents the flame from blowing off and enables them to be used in close combustion chambers where other types of tips would soon go out. The best applications of these tips will be found on low temperature operations such as candy furnaces, smokehouses, tank heaters, and core ovens.

DIMENSIONS & SPECIFICATIONS



STANDARD TIP

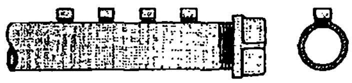
Catalog Number	Description	Size of Pipe Thd.	Burner Area, Sq. In.	Capacities BTU/Hr.*	Dimensions			Weight Each Ounces
					H	L	D	
20-ST	Standard Blast Tip and Alloy Ring	3/8	.0588	12,000	9/16	1-1/4	1	1-3/4
21-R	Steel Ring for No. 10ST	—	—	—	—	5/8	1	3/4
22-R	Alloy Ring for No. 20ST	—	—	—	—	5/8	1	3/4

NOTE: All dimensions are in inches.
*Based on full gas/air ratios at 5" w.c.

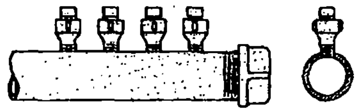
FIGURE 6 - GAS/AIR MIXTURE CAPACITIES OF STANDARD PIPE

Pipe Size, Inches:	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6
Max. CFH in 1000's:	.3	.55	.9	1.5	2	3.5	5.5	8	13	26	37

FIGURE 7 - TYPICAL INSTALLATION OF BLAST TIPS IN PIPE MANIFOLDS



Pipe burner showing tips screwed directly into pipe. Suitable for small capacities and short lengths.



Pipe burner showing tips mounted in extension fittings. Reducing fittings may also be used where large tips of small capacity are used.

4.2 Mixture Piping and Manifolds (Cont'd)

Line Burner assemblies should be provided with enough mixture inlets to keep mixture velocities at reasonable levels. The table below lists the maximum firing rate permitted per each burner inlet connection.

% Primary Air in Premix	Max Btu/hr Per Each 1-1/2" inlet	2" inlet	3" inlet
70	235,000	385,000	850,000
80	205,000	340,000	755,000
90	190,000	310,000	680,000
100	170,000	280,000	620,000

Follow the guidelines in Figure 6 for sizing mixture piping to feed these connections.

Provide at least three pipe diameters of straight pipe run into **Extended Cage Open Blast Burners, Sticktite, Ferrofix and Unitite Nozzles.** Failure to do so will cause lopsided flames, less flexibility in gas/air ratios, and an increased susceptibility to flashback. See Figure 6. **Never** install an elbow or tee immediately ahead of the nozzle. Blast Tips are less sensitive to piping practice and can be screwed directly into mixture manifolds or couplings or elbows mounted on those manifolds. See Figures 2 and 8.

4.3 Flame Supervision Equipment

Install flame rods, scanners and cables so that ambient temperatures or furnace radiation will not overheat them. Heat block seals or cooling air connections may be necessary for UV Scanners.

Flame sensor wire must not be run in the same conduit as power or ignition wires.

4.4 Spark Ignition Plugs

Power supplied to ignition plugs must be 6000 VAC minimum at 120 VA. Do not use pipe dope on ignition plug threads. Run ignition cables in a separate conduit. Do not mix them with any other wiring.

Dust Filter Emission Calculations

Modu-Kleen®
Bin Vent Filter, Series 669

Cartridge Filter efficiency data is provided to estimate controlled emissions to satisfy local Environmental Protection Bureau requirements.

Dynamic Air recommends that the cartridge filter operates between 8.0 and 10.0 inches WG to achieve optimum collection efficiency results. Changing the operating differential pressure can be done by changing the differential pressure switch set-point. In order to calculate the controlled emissions from a dust filter, we first need to determine the uncontrolled emissions. A typical Dynamic Air Dense Phase Pneumatic Conveying System generates approximately 50 grains/cu. ft. air of uncontrolled emissions. For a bag breaking station, this reduces to approximately 25 grains/cu. ft. air.

Below is an example of a controlled emissions calculation.

Given:

Air Flow:	250 SCFM
Dust Particle Size:	2.0 microns
Application:	Dynamic Air Dense Phase Conveying
Media :	Hypoly filter
Blow Time:	2.15 minutes
Cycle Time:	6.21 minutes
Operating hours per day: 8 hours	

Results: In the 8-10 inches WG range for a 2.0 micron material, the nominal laboratory efficiency for the Hypoly cartridge media is 99.99 percent.

The uncontrolled emissions = Air Flow x Uncontrolled Dust Loading

$$= 250 \ \frac{FT^3 \ AIR}{MIN} \ X \ \frac{50 \ GRAINS}{FT^3 \ AIR} = 12{,}500 \ \frac{GRAINS}{MIN} = 107 \ \frac{LBS}{HR}$$

The controlled emissions = Uncontrolled Emissions x (1 - Efficiency)

$$= 107 \ \frac{LBS}{HR} \ X \ (1 - 0.9999) = 0.0107 \frac{LBS}{HR}$$

The hourly emissions = Controlled Emission x $\left(\frac{\textbf{Blow Time}}{\textbf{Cycle Time}}\right)$

$$= 0.0107 \ \frac{LBS}{HR} \ X \ \left(\frac{2.15 \ MIN}{6.21 \ MIN}\right) = 0.0037 \ \frac{LBS}{HR}$$

The daily emissions = Hourly Emissions x Operating Hours Per Day

$$= 0.0037 \ \frac{LBS}{HR} \ X \ 8 \ HRS = 0.0296 \ \frac{LBS}{DAY}$$

Dust Filter Emission Calculations

Dust Filter Cartridge Laboratory Test Efficiency

Note: Dynamic Air recommends that the cartridge filter operates between 8.0 and 10.0 inches WG to achieve optimum collection efficiency results. When special conditions exist, contact Dynamic Air for specific design calculations.

Media Type	Particle Size & Above (μ)	Nominal Tested Efficiency
HYPOLY Filter**	2.0	99.99%
HYPOLY-HO Filter (Hydro and Oleophobic)	2.0	99.99%
HYPOLY PTFE Filter PTFE Membrane	0.5	99.99%
POLYCELL-120 Filter	5.0	99.998%
CELLTEX-105 Filter	5.0	99.99%
KARTEX Filter mmm	1.0	99.99%

Hypoly filter – A fine denier, spun bond polyester, renewable media that combines high efficiency, excellent release characteristics and moisture tolerance for high volume and extended filter life.

Hypoly-HO filter – A fine denier, spun bond polyester, renewable media that combines high efficiency and excellent
release characteristics with an enhanced surface treatment that repels water and oil.

Hypoly-PTFE filter – A high efficiency PTFE membrane laminated to the standard Hypoly media, producing a filter with extraordinary release characteristics and efficiencies on fine particles. This media choice is an excellent, effective filter for hard-to-solve filtration problems.

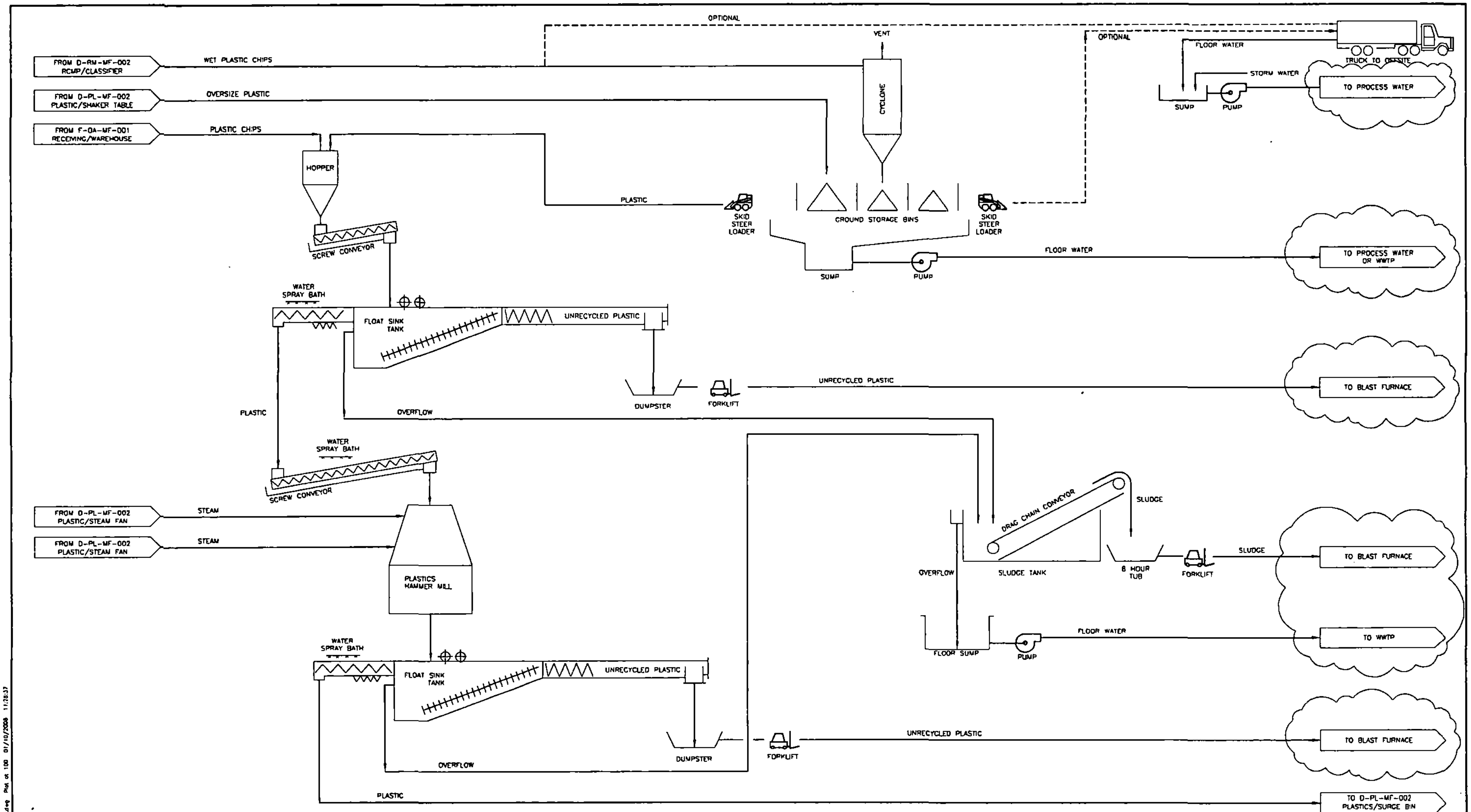
Polycell-120 filter – Synthetic fibers blended with cellulose to create high-durability media. Excellent abrasion and temperature resistance.

Celltex-105 filter – A gradient density cellulose base media that offers high efficiency, abrasion resistance and a dual layer with a low cure resin.

Kartex filter – Polyester needled felt with expanded PTFE membrane. Maximum efficiency capability with superior release characteristics.

** The Hypoly filter is the media used in the standard Modu-Kleen bin vent filter, Series 669.

Attachment M



PRELIMINARY FOR REVIEW

CONFIDENTIAL

NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION	RELEASED TO/FOR	DATE RELEASED
–	–	–	–	– – –	–	CLIENT / BID / CONSTRUCTION	A B C 0 1 2 3

BARR — Corporate Headquarters: Minneapolis, Minnesota Ph. 1-800-632-2277

Project Office: BARR ENGINEERING CO. 4700 WEST 77TH STREET MINNEAPOLIS, MN. 55435-4803 Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com

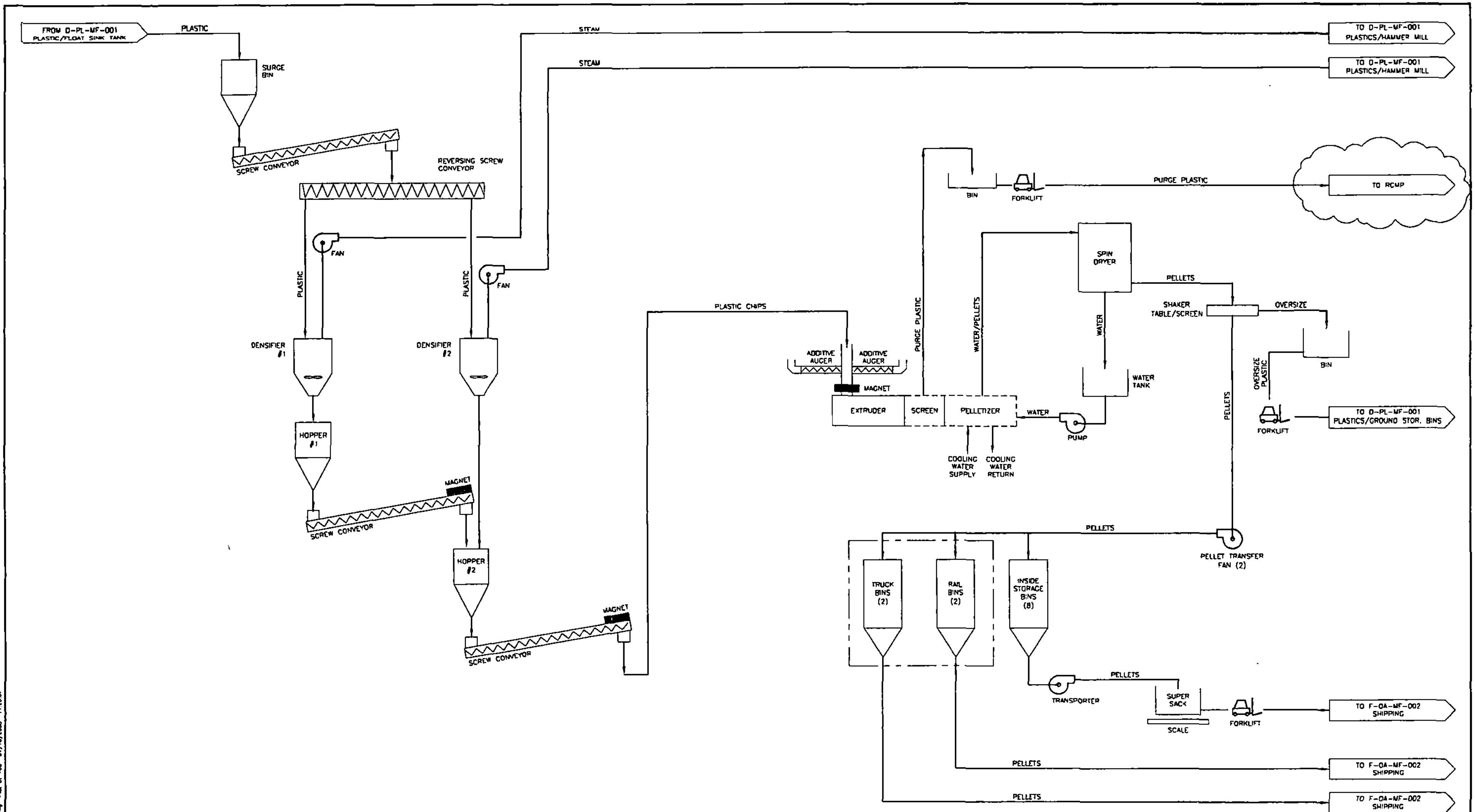
Scale: AS SHOWN | Date | Drawn | Checked | Designed | Approved

GOPHER RESOURCE CORPORATION
EAGAN, MINNESOTA

EFT SMELTER MODIFICATIONS
TAMPA, FLORIDA

PROCESS FLOW DIAGRAM
PLASTICS – PREPARATION

BARR PROJECT No. 23/19-A25
CLIENT PROJECT No.
DWG. No. D-PL-MF-001 | REV. No. A.1



PRELIMINARY FOR REVIEW

CONFIDENTIAL

NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION
-	-	-	-	—	—

CLIENT
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CONSTRUCTION
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Date
Drawn
Checked
Designed
Approved

GOPHER RESOURCE CORPORATION
EAGAN, MINNESOTA

EFT SMELTER MODIFICATIONS
TAMPA, FLORIDA

PROCESS FLOW DIAGRAM
PLASTICS – FINISHING

BARR PROJECT No. 23/19-A25
CLIENT PROJECT No.
DWG. No. D-PL-MF-002
REV. No. A.1

BARR

Barr Engineering Company
4700 West 77th Street • Minneapolis, MN 55435-4803
Phone: 952-832-2600 • Fax: 952-832-2601 • www.barr.com *An EEO Employer*

Minneapolis, MN • Hibbing, MN • Duluth, MN • Ann Arbor, MI • Jefferson City, MO

Memorandum

To: Rob Hudson

From: Paul Schiller

Subject: Gopher/EFT – Anticipated emissions levels from future plastics bins at Envirofocus Technologies Site

Date: October 10, 2008

Cc: (Environ) Russell Kemp, Frank Burbach

We have considered the discharge from future plastics bins that are planned as part of the proposed Smelter Expansion Project at EFT, and have the following technical opinion based on our knowledge and understanding of the proposed plastics recycling process:

Certain assumptions needed to be made including:

- The dilute phase pneumatic conveyor will use air from the general space in the plastics area of the building.
- Air quality will be such that respirators will not be required in the plastics area. Thus, the air quality in the plastics area will not exceed the OSHA Permissible Exposure Limits For Particulates (total dust = 0.0065 grain/ft^3).
- Plastic pellets will not have plastic dust on them, since they are washed, spun dry, and sorted by a vibrating screen. Therefore, the uncontrolled emissions from the pneumatic conveying system will not exceed the indoor air quality.
- Bin vent dust filters are commonly at least 99% efficient, and we should not have a problem specifying one as such.

Therefore;

controlled emissions = (0.0065 grain/ft^3)*(1-0.99) = 6.5E-5 grain/ft^3

Please let us know if you require further information on this subject.

EnviroFocus
Technologies

October 10, 2008

Mr. Al Linero
Program Administrator
Special Projects Section
Florida Department of Environmental Protection
2600 Blairstone Road
Tallahassee, Florida 32399-2400

RECEIVED
OCT 15 2008
BUREAU OF AIR REGULATION

Re: Response to Request for Additional Information
Project Number: 0570057-020-AC

Dear Mr. Linero:

We are in receipt of your September 12, 2008 letter requesting additional information in support of the Air Construction Permit Application we submitted on August 8, 2008 for the modification of EnviroFocus Technologies, LLC's lead recycling facility in Tampa, Florida. Since receipt of that letter we have been in frequent contact with David Read and Debbie Nelson of your staff and Sterlin Woodard and Diana Lee of the Hillsborough County EPC regarding specifics of the information request.

Enclosed is a compilation of the additional information requested by the Department. Accompanying this material are certification forms providing statements by both the facility Owner and a Florida Professional Engineer in support of the additional information being submitted.

We trust that with the submittal of this information in response to your September 12, 2008 request our application is complete.

We appreciate the assistance of your staff and the staff of the Hillsborough County EPC in reviewing our application. Please feel to call me or our consultant, Russell Kemp of ENVIRON (678-388-1654) with any questions or comments you may have regarding the enclosed responses.

Sincerely,
EnviroFocus Technologies, LLC

John Tapper
Chief Operating Officer

Enclosures

cc. Sterlin Woodard, PE, Hillsborough County EPC

EnviroFocus Technologies LLC
Voice 813-620-3260 Fax 813-620-3505 www.efttampa.com 1901 N. 66th Street · Tampa, Florida 33619